THE LANCET.

VOL. II.] LONDON, SATURDAY, MAY 13, 1843. [1842-43.

THE INTRODUCTORY LECTURE

TO A COURSE OF LECTURES

ON MIDWIFERY AND DISEASES OF WOMEN AND CHILDREN,

DELIVERED ON MAY THE 1ST, 1843,

BY

JOHN HALL DAVIS, M.B.,

Physician to the Royal Maternity Charity.

GENTLEMEN,—In part fulfilment of the wish of my late father, that I should succeed to him in every way in his profession, I have been induced to address you on the present occasion in the capacity of a public teacher of that branch of medicine in which he was so pre-eminently distinguished.

Eleven years having now elapsed since I was appointed by my late father to the duty of assisting him in the practical midwifery class of University College, it may be presumed by those gentlemen who are aware of the nature of that office, that the advantages which I have derived from that source cannot have been few; it may, moreover, reasonably be supposed that an association with one so distinguished in his profession as my late parent was, must have afforded me ample means also of qualifying myself for the duties of a public teacher in this branch of medicine.

I may, perhaps, without exposing myself to the serious charge of egotism, be allowed to inform those of my hearers who may not be aware of the nature of the appointment to which I have alluded, that I had in the performance of its duties to instruct the students of my father's class in the college, in the application of the different kinds of obstetric instruments, and, moreover, to give them advice in their practice under circumstances of difficulty and danger, as also to perform all the operations, both manual and instrumental, which might be required.

With what success my endeavours to promote the interests of those gentlemen were attended it would not become me to say; but I may be permitted, I trust, on this occasion to observe, that it was with no small degree of pride I received so high a testimony of their confidence as that expressed in the very flattering memorial addressed by them to the council of the college, upon the occasion of my late father's resignation; and I avail myself of the present seasonable opportunity of returning to those gentlemen my very sincere and grateful acknowledgments for the approbation they were pleased to express in that memorial of my humble efforts to instruct them; and I beg to assure them, that should it be in my power at any time to contribute still further to their professional interests, it will ever be my constant study to do so. Allow me also to take advantage of this occasion to express my gratitude to my late father's medical friends for the many acts of kindness which I have received at their hands, and the interest which they have shown in my professional advancement, both before and since his lamented decease; and now, Gentlemen, let us proceed at once to the immediate object of our meeting.

The subject matter of the course of lectures upon which we are now entering embraces the history of one of the most wonderful functions which the Deity has attached to animal life, and in the persons unquestionably of the most beautiful and most finished productions of his power. The human female, the faithful companion of man, and the mother of his children, in the most anxious and perilous circumstances of her life, and in the most important epochs of of her history, is the party principally to be benefited by our honest exertions.

Among the numerous changes of constitution and character to which the human female is especially exposed, there are few which are not accompanied by more or less derangement of the general health, while others are productive of extreme suffering, or attended by circumstances of fatality and danger, even to life itself; hence the notoriety of the fact "that woman bringeth forth her children in sorrow."

This would appear, indeed, to be a law of the great function of reproduction imposed upon the women of all tribes, and countries, and times; it is impossible, therefore, t

conceive of any period of time, however remote, when a human birth could have taken place without exciting something of alarm and sympathy in the witnesses of an event so remarkable and mysterious,—an event, indeed, so important in its results, and more especially so painful and dangerous to the parturient. From the dictates of such sympathies and apprehensions it may be conjectured the first rude efforts of the art of midwifery took their origin.

In the earlier ages of the world, while the human race continued to live according to the suggestions of a natural instinct, without necessity or motive for hard labour, under the blessings of a mild and salubrious climate, and exposed only to the few influences and accidents inseparable from the simplest wants and the simplest institutions, it cannot, indeed, be supposed that the services here presumed would be frequently required.

It is most probable, that in such a state of society women rendered to one another such kindly services, as the function of labour would require when performed in the most natural manner. In process of time there would be some one in a community professing in such matters to be more intelligent or experienced than her ordinary neighbours, though it may be conjectured that the few cases of difficult or dangerous parturition, which might be expected occasionally to occur, those chiefly of premature births and cross presentations, would not be essentially benefited by the proffered assistance, and would frequently end fatally both to mother and child; but, as such instances would be but rare while mankind were thinly scattered on the face of the earth, they would be lost amidst the general experience of perfect births and prosperous recoveries.

Hence we may infer the probability that the custom of having experienced persons set apart for the purpose of affording assistance in the act of childbirth did not take place till the world became more or less populous, and mankind began to collect into cities, to form themselves into independent nations, and to adopt, at least, an incipient state of civilisation. From the crowding together of numbers of families danger in fatal cases would then become more extensively known, and would accordingly excite greater alarm.

From the progress of civilisation, from the extension of commerce, from the invention and improvement of arts, men would gradually depart in their mode of living from the simplicity of nature. The necessities of servitude would compel the poor and the dependent to engage in pursuits not a little injurious to their health, and perhaps directly calculated to weaken their frame and to pervert their symmetry of form; while the indolence and the excessive indulgence of the rich would not fail to involve their healths also in equal danger. Deformities of shape would in this way become a frequent occurrence, and the circumstances producing them would, in a greater degree, affect the more delicate sex.

The difficulties of childbirth more frequently depend upon circumstances affecting the form and constitution of the mother than upon irregularities connected with the child; and, among the unprosperous labours occasioned by such circumstances, a large proportion are owing to diseases contracted in infancy and childhood, from errors committed in the nursery, and from employments ill suited to tender years, while the bones are still pliant, and susceptible of deviation from their true and natural shape.

Difficult labours are accordingly known to occur most frequently among weakly and sedentary women, proportionally oftener in large towns than in country villages, and still oftener in those districts where girls and women are employed in manufactories requiring close application, and where numbers are crowded together in the same building.

On the contrary, among rude and savage nations, it is well known that the function of parturition is in general easily and quickly performed, and it is equally true that in civilised life difficulties in childbirth less frequently occur where the employments of women refer solely to the performance of their domestic duties.

Taking this view of the subject, the actual difference in the state of midwifery during the ruder ages of the world, and a period of civilisation so advanced as the present, will not be a matter of surprise.

The gradual increase of difficulties would eventually call the attention of the sex to a sense of their danger, and induce them to engage before their hour of trial the kindly services of their more experienced female friends; and in process of time that matron who, from the good opinion of her neighbours, had frequent calls to attend them during their confinements, would become a midwife by profession. Cases, however, would sometimes happen which would resist all the natural powers, and baffle at the same time the skill of the female attendant: the patient might expire before delivery, or fall a victim to its immediate consequences. The alarm produced by a few cases of this kind would, under similar circumstances, induce the friends to think of further means to obviate the threatened calamity. Application would naturally enough be made to persons of the other sex, in the practice of physic and surgery, who might assist the natural efforts, remove the causes which retarded delivery, and relieve the symptoms which were most likely to endanger life.

Although there are not many cases which require extraordinary assistance, yet as these

create a great sensation when they occur, and no woman can tell but it may be her fate to be marked as one of the unfortunate few, it is not unnatural that the fears of the sex should at last conquer their reserve, and induce many of them to prefer, in the first instance, the attendance of men, who, by being on the spot, might apply the appropriate means of relief as soon as the nature of the case demanded their employment. There is, however, great reason to believe that the introduction of our sex into the practice of midwifery was a measure suggested by unavoidable necessity, proceeding from the greatest possible alarm and intense bodily suffering; and it is well known that it has not been at all times accomplished without having recourse to legislative enactments, as in the case of the Athenians, who passed a law forbidding women and slaves to practise medicine, or to assist in the business of childbirth.

I shall now proceed to lay before you an historical survey of our subject, describing, in the order of their occurrence, the improvements which it has undergone from the earliest period of which we have any record to the time in which we live.

Moses, the Jewish legislator, who lived one thousand years before the time of Hippocrates, speaks of midwives as a respectable and distinct body among the Hebrews. The first account we possess of a person peculiarly devoted to this business is that recorded by Moses in the Book of Genesis, of the midwife who attended upon the unfortunate case of Rachel, the wife of Jacob. In the same book we also read that Thamar the widow of Er, son of Judah, in her labour of twins, was attended by a professed midwife; and again in the book of Exodus we are told of the two Hebrew midwives, Shiprah and Puah, who were commanded by Pharaoh, when alarmed at the rapid increase of the Israelites in Egypt, to kill all the male Jewish children in the birth.

At this period of remote antiquity, and, indeed, for many ages thereafter, the practice of midwifery was exclusively in the hands of females, and it is a fact that, with few and rare exceptions, they continued in undivided possession of it until within a short period of our own times. It would appear, however, from the frequent allusion to midwives and their duties in the works of Hippocrates, Plato, Aristotle, the elder Pliny, Galen, and Ætius, that the employment of a midwife was held in considerable estimation among the Greeks. Galen refers to the works of a female of the name of Cleopatra, supposed by some to have been the celebrated Queen of Egypt. Ætius transcribes some chapters from the works of a female practitioner of the name of Aspasia, containing directions for the management of women in natural labour. In Rome also midwives were persons of some importance, as would appear from the writings of Terence and Plautus.

The first writer, however, who has afforded us any authentic information on the practice of midwifery in ancient times is Hippocrates, who was contemporary with three other celebrated Athenian philosophers, Socrates, Xenophon, and Plato, and died at an advanced age about three hundred and sixty years before Christ. Much has been said in eulogy of the illustrious father of physic; and when we consider that he had the merit of giving something like form and substance to the loose fragments of medical and surgical knowledge which existed before his time, we may presume, that his pre-eminence was really founded on a brilliant superiority of talent. He was a careful observer of the symptoms of disease, and many of his descriptions, indeed, are so remarkable for their accuracy, that they have not been surpassed even in the present day. Our author describes with great exactness the symptoms accompanying obstructed menstruation, and the signs which precede uterine hæmorrhage; the constitutional effects produced by the continuance of the latter are also detailed by him with much accuracy, and accompanied by many excellent practical observations. As causes of abortion he enumerates such as are recognised in the present day, viz., acute diseases supervening during pregnancy, debility, lifting of heavy weights, blows, falls, sudden movements of the body, tenesmus, fainting, anxiety of mind, violent emotions, diseases of the parents, rupturing of the membranes, &c. &c.; and in the following account we recognise a faithful catalogue of the principal features of puerperal fever:—"If the lochial discharge does not go on, and the woman becomes feverish, with shivering fits, if the abdomen swells, and there are darting pains through it, and the patient complains much when moved, and more especially upon the abdomen being touched, if there commences about the seventh day a purging of black and fetid stools, with offensive urine, he concludes at once upon the probable fatality of the case. He adverts to the danger indicated by syncope and convulsions in cases of flooding, and observes that pains in the head with a sense of fulness causing a tendency to sleep, accompanied by numbness, are bad symptoms, and threaten convulsions. On the other hand, it must be confessed that some of his theories are often highly absurd, and in some instances his supposed facts are totally unfounded. His directions on operative midwifery are lamentable proofs of the little progress which had been made in the manual part of the art up to his time, inasmuch as they are calculated rather to increase the danger of childbirth than to diminish its difficulties. If any other part than the head presented, his directions were to push it up and bring the head down; if there

was any difficulty or tediousness in the case, the patient was to be well shaken by two assistants until her pains expelled the child! And should these means fail of effecting delivery, he directs us to lessen the child's bulk by cutting instruments, and to deliver it by the crotchet, applied to the shoulder or the neighbourhood of the clavicle. He adds, the precaution, however, that the delivery is to be effected by gradual and repeated efforts. He proposes several methods of assisting the expulsion of the placenta, but forbids us to use any force; nor does he even mention the introduction of the hand for its removal.

The next author entitled to our notice is Aristotle. In his work on the Generation of Animals he speaks of the signs of puberty, of the function of menstruation, of the signs of conception, of the situation of the fœtus in utero, of the natural presentation of the head in labour, of the nourishment of the fœtus by the navel-string, &c.

After Aristotle appeared Celsus, a Roman physician, in the time of Augustus and Tiberius. His excellent treatise, "De Medicina," contains some useful practical remarks relating to our subject. In his seventh book he alludes to the operation necessary to remove a fleshy substance obstructing the female passage, and when the vaginal orifice is closed by a membrane he directs a crucial incision to be made,—the practice adopted in such cases in the present day. He urges the importance of giving assistance in labour before the commencement of inflammation, and mentions, as consequences of delay, the occurrence of vomiting, rigors, and fatal convulsions. He prescribes rules for the gradual and safe introduction of the hand into the cavity of the womb, when the mouth of that organ is yet not fully dilated, and directs us to turn the child on its head or upon its feet, should they be nearest; thus departing from the practice of Hippocrates whose object was to bring down the head in all cases. In the use of the crotchet he enjoins us to guard against the slipping of the instrument, and the consequent injury to the mother. He informs us that delivery by the feet is not difficult to accomplish. In transverse presentations, when the fœtus is dead and cannot be delivered by the hand, we are directed by Celsus to fix a crotchet in the axilla, and then to draw down, and the head being turned back upon the body the neck is to be divided by a hook made sharp along its internal margin, so that the head and trunk may be brought away separately. My senior hearers will at once recognise in this contrivance for decapitation of the fœtus, the rude original of the admirable instrument, now in use for that purpose, and for the introduction of which into modern practice we are indebted to Dr. Ramsbotham, senior. Celsus has laid down rules for the extraction of the head after the delivery of the body, such as are approved of in the present day. After the birth of the child he advises the immediate removal of the placenta, a point of practice in which he differs from Hippocrates, as also in the confidence with which he speaks of the facility, and sometimes of the advantage of delivery by the feet.

The next author is Aretæus, a physician of Cappadocia, who lived about the time of Nero A. D. 80. He devotes a chapter in his work to the diseases of the uterus, and assigns as the cause of prolapsion of the uterus relaxation of the uterine ligament.

After Aretæus we should mention Moschion, who is said to have lived in the time of the same emperor, and is noticed by Pliny and Galen. He treats of the female organs of generation and of the diseases peculiar to the sex, natural, preternatural, and difficult labours; and as causes of difficulty he enumerates among others, as we do in the present day, tumours in the passage, rigidity of the membranes, their premature rupture, excessive bulk of the child, transverse presentations, and plurality of children.

Under the management of difficult labour he directs the evacuation of the bowels by an enema, and of the bladder by the use of a catheter; he reprobates the practice of shaking the patient, as adopted in tedious and difficult labours in the time and after the advice of Hippocrates. After the birth of the child he directs the cord to be pulled gently from side to side. But should the placenta not then come away, the hand is to be introduced, and the placenta extracted if detached and loose; but should it adhere firmly to the uterus he advises a cautious separation of it first. This author condemns the practice of his predecessors with regard to the management of the placenta as likely to produce inflammation and hæmorrhage; in other points of practice he agrees with Celsus and Hippocrates. He has left also some remarks on the management of children.

Soranus, of Ephesus, who lived in the time of the Emperor Trajan, viz., in the early part of the second century, next comes under our notice. He wrote a good description of the uterus, and demonstrated the non-existence of cotyledons in the human subject.

Rufus, of Ephesus, lived at nearly the same time as Soranus. In his description of the uterus he speaks distinctly of the passages in the broad ligaments now called the Fallopian tubes, a discovery subsequently claimed by Galen.

Galen was born at Pergamus, and flourished at a later period of the same century, living in the reign of the Emperor Adrian, about 600 years after Hippocrates.

He attributes the powers exerted in parturition to the contractile efforts of the uterus itself, and ridicules the notion which had prevailed before his time of the wanderings of the uterus about the body.

Oribasius, who lived in the time of the Emperor Julian, by whom he was held in high estimation, has collected a good deal of matter on the diseases of women. In prolapsion of the uterus he recommends emptying the bladder and rectum previous to any attempt being made at reduction.

Ætius was the next writer of importance on our subject. He lived at the end of the fifth and beginning of the sixth century. He enumerates the causes of difficult parturition, and adds to those mentioned by preceding authors, anchylosis of the ossa pubis at their symphyses, believing that separation actually takes place at this part in the time of parturition, and alludes to other points which my time will not allow me to dwell upon.

Paulus of Ægina, the last of the old Greek writers, flourished in the beginning of the seventh century. He was really more of an original writer than any of his predecessors since the days of Hippocrates; he trusted more to nature, and had better notions than those who had preceded him of the mechanism of the child's transit through the pelvic cavity, so that he, in fact, led the way to what Smellie, first of all the moderns, so clearly afterwards explained and so successfully practised.

At this stage of our history we arrive at the long and gloomy period which, as far as literature and science are concerned, has been aptly distinguished by the name of the Dark Ages. Under the continual inroads from the northern nations, and the constant disturbances of peace, the arts first languished, and at last totally deserted the western division of the empire. The encouragement given to learning and learned men by many of the emperors, and the pre-eminent reputation of the school of Alexandria, continued, indeed, to render the eastern empire for some time the seat of science and the asylum of the fine arts; but similar causes to those which had been so fatal to learning in Europe, operating here, also, produced similar effects. On the sacking of Alexandria by the Saracens, A.D. 640, what then remained of the once famous library of that city was consigned to the flames, by which act of barbarism the greater part of the knowledge possessed by the ancients, both in literature and art, became lost to succeeding ages. After that deplorable event, a period of two centuries elapsed before the appearance of any author on medicine.

We then have a succession of Arabian writers, the works of whom chiefly consisted of compilations from Greek authors, manuscripts of whose writings had been preserved. Of these, Serapion, who wrote on the diseases of pregnant women, is one of the first.

Rhazes, who lived at Bagdad, in the tenth century, was the first to suggest the use of the fillet in difficult births, and to treat expressly of the diseases of children.

Avicenna, a very voluminous compiler from the Greek authors, who also practised the use of the fillet, lived in the beginning of the eleventh century.

Albucasis, who comes next, was acquainted with the occurrence of extra-uterine gestation, and gives figures of the instruments then in use, delineating, among others, two kinds of forceps of a circular form, furnished with teeth on the inside to squeeze and crush the fœtal head. On the occasion of retention of the placenta, his treatment was that which was afterwards so unfortunately adopted by Dr. Wm. Hunter, the particulars of which and the evils attendant upon it, it will be my duty to lay before you in the progress of the course. With the decline of learning in the East, which we may date from the destruction of the Egyptian caliphate by the Turks, in the twelfth century, closes our account of Arabian writers.

Although learning for a few ages seems to have been cultivated by the Mahometans, yet was it not totally neglected by the Christians of the west during that period. The study of the languages was encouraged at Salerno as early as the seventh century, and in the beginning of the ninth an university was founded at Pavia by Charlemagne, the medical school in which has been held even to our day, in considerable estimation. The Crusaders to the Holy Land contributed indirectly their share likewise towards the revival of learning in Europe. Commerce had been for some time gaining ground in the maritime states of Italy, and contributed also, in no small degree, in restoring to the people of Europe those arts and sciences which they had lost at a former period. Until towards the middle of the fifteenth century, however, comparatively little progress had been effected either in literature or art. An event of great importance, mighty indeed in its results, then occurred, namely, the invention of the art of printing in 1432, by Faust, citizen of Mentz, by which brilliant discovery was the scientific light of the ancients, as contained in the then existing manuscripts, speedily shed over the whole of Europe.

In the next century the practice of physic began to be encouraged in England; the College of Physicians in London was founded by Henry VIII., at the instance of Linacre, 1518; and as we may at this mentioned period consider the middle ages as fairly terminated, we shall expect to find obstetric medicine now once more in a progressive condition.

In 1532, a treatise on Parturition, by Eucharius Rhodion, a German, was published; it was subsequently translated into Latin and other languages, and became almost universally the "Midwife's Handbook" throughout Europe. The next work of reputation on midwifery was published in England in 1540 by Dr. Raynalde, and owing to the estimation in which it was held, this also passed through several editions.

In the middle of this, the sixteenth century, appeared Ambrose Parè, surgeon to several successive kings of France, and the father of modern surgery. He was the first of the moderns who contributed materially to the improvement of our art, and the first who decided positively, and upon distinct and clear principles, in favour of the operation of turning the fœtus in utero and delivery by the feet, the introduction of which into practice wrought an entire revolution in the business of midwifery, and justly raised his name to the highest distinction among the professors of the obstetric art.

Before the time of Parè the practice in cross-births had, with few exceptions, been to shake the patient and to alter her position in various ways, with the intention of bringing down the head, and, failing in this, to have recourse to mutilation of the fœtus. The operation of turning by the feet, alluded to by Celsus, was very different from that introduced by Parè, it was only practised in those cases in which the feet could be more readily reached than the head. The operation of turning was applied by Parè likewise to cases of labour complicated by uterine hæmorrhage, without any regard to the nature of the presentation. Parè recommended the removal of the placenta immediately after the birth of the child; but in the performance of this duty he urged, in the strongest terms, the necessity of extreme caution. It should be further stated that Parè was a strong opponent of the Cæsarean operation.

I would next allude to the illustrious Harvey, who immortalised himself by the discovery of the circulation of the blood. He received considerable marks of royal favour from James and Charles the First, the latter of whom materially assisted his inquiries concerning generation by granting him opportunities of dissecting numerous females of the deer kind in different stages of pregnancy. Many of his works perished in the confusion of the civil wars which followed the murder of his prince; his valuable researches on Generation, however, and his work on Parturition, still remain to us lasting monuments of his genius and his industry.

In 1609 appeared the excellent treatise of Guillemeau. His observations on the treatment and causes of difficult labours are well worthy of attention, and arranged with considerable method. Guillemeau was the pupil of Ambrose Parè, and the translator of his work into Latin, and whilst he improved on many of the rules of his master, he has added many valuable observations of his own.

Hitherto the practice of midwifery had been almost exclusively in the hands of females, the advice and assistance of male practitioners being applied to only in cases of difficulty and apprehended danger. We have the authority of history for stating that the Duchess de la Vallière, the favourite mistress of Louis XIV., was the first female who was induced to place herself under the exclusive care of a male practitioner, independently of any anticipated necessity for a surgical operation. That event took place in December, 1663, and Julian Clement, the fortunate attendant upon the case, shortly after received the new appointment of accoucheur to the princesses of France. Thus were furnished to the other ladies of the court, and to all classes of society, both an example and an inducement to place themselves under the care of male practitioners. Of Clement it is stated that at an early period of his practice he saw the absurdity of considering women in childbed as persons in a state of disease, and that he introduced many salutary regulations for their treatment. He has, moreover, the merit of having first suggested the propriety of rupturing the membranes at an early period of labour in cases of hæmorrhage, a practice which was afterwards so successfully pursued by his pupil and successor, Puzos, and so much improved upon by our own countryman, the late Dr. Rigby, of Norwich.

Soon after this period wards were opened in Paris, at the Hôtel Dieu, for the reception of lying-in women, and opportunities were thus afforded to men of talents and observation to practise the art in difficult and dangerous cases. In the wane of the 17th century, namely, in the year 1668, Francis Mauriceau, after an extensive practice of several years in the Hôtel Dieu and city of Paris, published his celebrated "System of Midwifery," which greatly surpassed any work which had previously appeared in that department of medicine. Contemporary with Mauriceau, and rivals of his great reputation, were Dr. Chamberlain and his three sons, the inventors of the forceps, and there is much reason to believe of the lever also, although Roonhuysen and Plaatman have respectively been awarded the merit of this invention. To Dr. Hugh Chamberlain, one of the sons, our countrymen are, moreover, indebted for an English translation (which appeared in 1672, subsequently to his unfortunate visit to France) of Mauriceau's splendid work.

Portal, who wrote on midwifery in 1685, was the first to state distinctly that the placenta in placental presentations is found ad-

herent to the mouth of the womb. Most of the authors before his time had unequivocally asserted their belief that in placenta prævia the after-birth had reached that situation after having been detached from the fundus or body of the uterus.

In 1701 Deventer, in Holland, published a work on midwifery, which was translated into English in 1729. He makes some original observations on the relative diameters of the pelvis and of the fœtal head, and devotes much attention to the subject of obliquity of the uterus, which malposition he assigns as a principal cause of difficult labours; whereas it is a fact that in Holland, where he practised, pelvic distortions are of frequent occurrence; hence it is most probable that the difficulties which he met with were really dependent on contractions of the pelvic space.

Midwifery now came to be taught in the lectures of appointed professors of the art. Dr. Astruc received the appointment of professor in midwifery from the Faculty of Paris in 1745; and near the same period the distinguished Ruysch was appointed to lecture at Amsterdam.

In 1751 George II., of England, appointed the truly excellent Roederer professor of midwifery in the university of Göttengen. Roederer established an obstetric reputation by his "Elementa Artis Obstetriciæ," and plates of the human uterus. Before this period, however, midwifery had been made the subject of oral instruction in London. Dr. Mawbray commenced a course on this department of medical education at his house in Bond-street; of whom it may be stated that he was greatly averse to the use of instruments, and exclaimed with great vehemence against their employment in his work on midwifery entitled the "Female Physician," which appeared in 1723. Edmund Chapman was the second lecturer on midwifery in London; he was the first to publish a description of the forceps employed by the Chamberlains, and he has left us a good treatise on Midwifery, illustrated by cases, and published in 1733. He materially improved the practice of the art, and freely communicated to his pupils what he himself knew on the subject. He was the first to abandon the pivot-lock, which distinguishes the French forceps, and invented the mode of locking the blades which now characterises the forceps of the English obstetric practitioner. The posthumous works of Giffard were published in the following year by Dr. Hody, and the cases by which it is illustrated, described with much fidelity, may be considered as examples of the practice at that time.

In 1736 Sir Richard Manningham published his "Compendium Artis Obstetriciæ," and in 1739 he founded the first lying-in institution in London, one of the wards of the parochial infirmary of St. James, Westminster, being devoted to that purpose. In 1747 appeared the treatise of Sir Fielding Oulde, of Dublin; and in 1754 the truly excellent plates of Dr. Smellie,—beautiful productions as works of art and faithful representations of what they were intended to delineate. Two years later Smellie published his valuable work on the Theory and Practice of Midwifery, and the interests of our art were further advanced by his invention of the scissor-perforator called after him, and also by the improvements which he introduced in the construction of the forceps.

Contemporary with Smellie was the distinguished Levret, of France, who, besides other professional exertions, made the valuable addition to the forceps of the pelvic curve, and introduced some new and original views on the subject of uterine hæmorrhage complicating pregnancy. In addition to the authorities to whom I have already directed your attention, there are many other excellent writers on the subject of midwifery, and most estimable contributors to the improvement of the science. Of such writers and contributors I may instance among the principal the names of Petit, Gregoire, Baudelocque, Lachapelle, and Boivin, in France; Meckel, Siebold, Naegele, Osiander, in Germany; the Hunters, Osborn, Denman, Young, Hamilton, Burns, the Clarkes, Merriman, the Ramsbothams, Montgomery, Simpson, &c., in Great Britain; and I may, perhaps, be allowed to add to the list of our own countrymen the name of my late father, of whom it may in truth be said that his life was one of an entire devotedness to the improvement of the obstetric art.

In the department of operative midwifery he applied himself from an early period of his professional career with much energy to supply what was deficient and to improve what was ill adapted; his exertions in this branch of his art being chiefly directed to facilitating and rendering much safer than heretofore the business of instrumental delivery under all circumstances.

In his excellent work on Operative Midwifery you will find delineated and described the several instruments which he introduced into the practice of midwifery, of which a modification of the common forceps, the osteotomist, a truly valuable instrument; the oblique forceps, for altering oblique and transverse positions of the head, in head presentations, after a failure of the natural powers to effect that object; his two varieties of guarded crotchet, and the guarded decapitating knife, are among the principal. In 1817, he was the first to recognise the correct pathology of phlegmasia dolens. In the spring of the same year my father's view of its proximate cause, viz., inflammation and suppuration of the iliac veins, was made the subject of a public debate in the Bartholomew Medical Society, and was publicly taught by my father

every succeeding year down to 1823, when it formed the subject of a paper in the "Royal Medico-Chirurgical Transactions." After a further professional experience of nineteen years, my father published his valuable work on Obstetric Medicine, containing the evidence of extensive research into the literature of his profession, as well as of a large experience in its practice; and a few months before his lamented decease he produced a "Treatise on Acute Hydrocephalus," the object of which is to demonstrate its inflammatory character, and its curability equally, and by the same means, with other diseases of inflammation.

With this short tribute to my father's memory I must close this brief historical sketch of my subject, which the short limits of an hour's lecture has enabled me to give. As regards the importance of obstetric studies I need not detain you long. To many of my hearers it is too obvious for further comment; to the tyro in this branch of medical education I would say that although it is perfectly true, as has been advanced by those undervaluing the obstetric art, that the function of parturition is in general naturally performed, and will require little or no assistance in a large proportion of labours, yet what is to be done in the one out of eighty, ninety, or one hundred cases in which the function is performed under circumstances of difficulty and danger? and if two or three such cases occurring to you, in the earlier part of your practice, were to succeed one another, as sometimes happens, what would become of your reputation if the lives of your patients fall a sacrifice to your ignorance? Many cases are so urgent, require so immediately an application of vigorous measures for their successful termination, that there is no time to procure advice and assistance from a second party, especially in a country practice; and here I would more especially instance the accident of uterine hæmorrhage.

I have just lately had before me an instance of death by a first attack of puerperal convulsions occurring in a plethoric subject, where, by a timely recourse to the use of the lancet (but the medical man did not arrive in time to apply it), the life of a mother of a large family might have been saved. In many other cases requiring decision in our measures, and their immediate and effective employment, might be enumerated, but these will be developed in the progress of the course, as will also many points in the history of our subject, to which my present brief limits forbid any further allusion.

The plan of the course will be as follows:—It will be divided into three sections—anatomical, physiological, and pathological. The anatomy of the parts concerned in parturition will first be described as indispensable to a correct knowledge of their functions. The hard parts will be treated of separately and collectively in their natural condition, afterwards as affected by disease. The same course will be pursued in reference to the soft parts, and their functions will be fully discussed under the heads of menstruation, conception, and parturition. The function of parturition will be discussed under classes of labour—natural, preternatural, complex, and instrumental, differing from that of Dr. Denman in placing, under a distinct class, those cases of labour requiring for their treatment the use of instruments, by which arrangement I shall be enabled to devote to the subject of instrumental midwifery that importance which it truly deserves. In the pathological department of the course I shall treat first of the diseases of women in the unimpregnated, pregnant, and puerperal states; and secondly, and in conclusion to my course, on the diseases of early infancy.

In the progress of these lectures I shall have the opportunity of illustrating the subjects discussed by a museum of preparations, and by an extensive series of diagrams, including tables of some valuable statistics drawn from the experience of twenty-five years in the practice of the Royal Maternity Charity; and in the practical part of the lecture the different operations of midwifery both manual and instrumental will be shown by myself and practised by my pupils, and ample opportunities for the actual practice of the art by attendance on cases of labour will likewise be afforded. In conclusion, Gentlemen, I have to thank you for your kind attention to this address, and to beg that you will on no occasion hesitate when in difficulty about the proper understanding of the subjects which will come before us, to apply to me for what assistance it may be in my power to render you.

CONVERSION OF THE NERVES INTO FAT.

Professor Fick, of Marburg, remarked this unusual circumstance in the body of a man, about thirty years of age, who had died œdematous, and had several fistulous openings into the left tibio-tarsal articulation. The sciatic nerve of that side was considerably enlarged beyond its natural size, and a microscopic examination proved that a large proportion of fat had been deposited in the neurilema. On following the branches of the nerve into the foot it was ascertained that fatty particles there wholly replaced the nervous matter.—*Müller's Archiv.*, 1842.

MERCURIAL CIGARS.

M. Paul Bernard lately proposed to the Acad. de la Medecine, the use of cigars impregnated with a weak solution of bichloride of mercury for persons affected with syphilitic affections of the throat and palate, as a mode of conveying mercurial fumigation. It has been proposed first to deprive the tobacco of its narcotine by frequent washings.

KING'S COLLEGE HOSPITAL.

CASES AND OBSERVATIONS

BY

WILLIAM FERGUSSON, Esq.

TUMOUR OVER THE PAROTID GLAND.—OPERATION.

Lydia Halsted, ætat. 34, was admitted 26th January, 1843. Nine years ago first perceived a small hard tumour a little in front of the mastoid process, which has since gradually increased to its present size, having progressed more rapidly within the last twelve months than at any previous period. The swelling is now very conspicuous, and seems to occupy the entire region of the parotid, extending, however, much beyond the anterior and posterior boundaries of that gland. It extends from over the mastoid process, towards the mouth, about four inches, —this being its longest diameter; and from above downwards about three inches, the lobe of the ear being spread out on its surface. The mass is remarkably hard, and slightly moveable on the parts beneath; the skin over it is of a natural colour, much attenuated, and does not appear to be adherent to the disease. Has no pain in the part, but has uneasy feelings extending from the tumour upwards over the eyebrows. Patient is married, has had a large family, has always enjoyed good health, has no other complaint at present, and in every respect seems to be sound in constitution.

31. The tumour was removed to-day. The patient was laid on the operating table, and a crucial incision having been made over the mass it was separated by a very careful dissection. The bleeding was copious, though no large vessel was divided. Four ligatures were applied; the edges of the wound were then brought together, and retained by stitches, straps, and bandages.

March 31. Since the operation nothing worthy of notice has occurred, the wound has healed, and the patient is this day discharged, cured.

In some clinical remarks Mr. Fergusson said that in this case doubts had been entertained whether an operation should be performed; as the tumour seemed so firmly attached to the surrounding parts, that, to all appearance, there might be considerable danger in such a proceeding. It resembled such instances as those which had often been termed enlargement of the parotid gland, and he supposed that some might have designated the operation which he had performed as an instance of the removal of this organ. So far from this being the case, however, he had scarcely touched that gland, —a few of its lobules only having been interfered with. When he first saw the case he came to the conclusion that although the tumour appeared firmly seated, there was such a kind of movement permitted as to indicate that the disease did not dip deep between the mastoid process and the angle of the jaw; it seemed rather to glide upon the surface of the parotid, although that movement was little more than perceptible. He had removed many tumours from this situation, and occasionally portions of the parotid with them, but in no instance had he seen a case, in his own practice, to which the description of extirpation of the parotid was applicable.

The tumour when removed was white, smooth on the surface, and of semi-cartilaginous hardness. On a section being made the aspect was granular and cartilaginous, with here and there some softer parts mottled with bloody points, which Mr. F. supposed might ultimately have assumed a malignant character.

STONE IN THE BLADDER.—LITHOTOMY.

Robert Wood, ætat, 60, farm-labourer, from Cranbrooke, Kent, admitted Jan. 28th, 1843. About seven years ago was suddenly attacked with pain in the loins (having never previously suffered in the same manner), and shortly after passed with his urine several small atoms about half the size of a pea. The urine was tinged with blood, and he had great pain in the region of the bladder. From that time to the present has never been without suffering, and latterly his life has been very miserable. At present he has pain extending from the loins to the bladder, and from thence along the urethra to the glans penis, where it is most severe; he occasionally passes blood, and the urine, which he is obliged to evacuate forty or fifty times at night, causes scalding pain. Is otherwise healthy, though at times subject to rheumatism. Was sounded two years ago, but is not aware that a stone was detected; about a month since the operation was repeated, and a stone was felt. Suffered great pain from each operation.

Feb. 4. Since his arrival has been kept very quiet, chiefly in bed; bowels have been freely opened; irritation in the bladder has somewhat subsided, and the urine has assumed a pale straw colour, being very slightly acid. To-day, at one o'clock, the stone has been extracted by the lateral operation of lithotomy. About an hour previously the rectum was emptied by an enema of warm water, and the patient was desired to retain his urine until the period of the operation. The staff having been introduced, and the patient bound in the usual way, an incision, commencing about one inch and three-fourths in front of the anus, and about a line's breadth from the raphé, was carried downwards and outwards about three inches, passing midway between the anus and tuberosity of the ischium; the

skin having been divided with one sweep of the knife, the subcutaneous cellular tissue was next incised to nearly the same extent; a shorter incision was then made in the direction of the membranous portion of the urethra, and the left forefinger was thrust through it towards the staff, when the point of the knife was carried into the groove, and run along towards the bladder; the knife having been withdrawn, the left forefinger was pushed into the bladder, the staff was removed, and, with the aid of the forceps, a stone, about the size of a walnut, was extracted with facility. The patient was immediately unbound and carried to bed, having apparently suffered very little from the operation. The stone was nodulated on the surface, and so dark in colour that it appeared when first seen as if it were of the mulberry kind, but it was afterwards ascertained to consist chiefly of uric acid.

March 9. The history of this case since the operation presents nothing worthy of special comment. On the day succeeding the operation the patient expressed himself greatly relieved, and declared that he had suffered less during the proceeding than he was often wont to do whilst voiding urine. Has had no cause of complaint since the stone was extracted, and is now so well that he leaves the house to-day. Five days after the operation some urine passed by the urethra; the quantity gradually increased, and on the sixteenth the whole was voided by this passage, and the open surface of the wound in the perineum healed very speedily afterwards.

In his observations on this case Mr. Fergusson contrasted it with the two immediately preceding (see LANCET, vol. i., 1842-3, p. 743), where the difficulties and dangers had been much greater, and where also the recovery was necessarily more tardy. Here the stone was known to be of comparatively small size, and as there was no great depth of perineum, no particular obstacle to the easy extraction of the stone could be anticipated. In the two instances referred to the stone had considerably exceeded the average bulk; in one the prostate gland was remarkably hard and unyielding, and in the other the obesity of the patient made the depth of the perineum so much greater than usual that this, combined with the magnitude of the stone, rendered the operation more than usually troublesome. In this instance the neck of the bladder had been reached with facility, and the stone had been brought through the prostate without that force which was necessary in the others; nor had there been any occasion for a second application of the knife to enlarge the wound in the prostate, as had been required in one of the other examples. The wound, too, had healed more kindly, for besides being smaller in size it was less ragged,—in other words, there was less contusion than in the former cases. Although often the largest wounds made in the operation healed very kindly, and it was not proper to calculate on the closing of such wounds altogether by their extent, it was but reasonable to suppose that where there was so little contusion, as in this last operation, the opening would in all probability heal as rapidly as was usually seen in the most successful cases of the kind. The students would perceive that this really had occurred; and here also there had been a remarkable contrast to the other in the circumstance that as soon as the urine had resumed its natural course the patient had all the power of retaining and voiding that fluid that persons have who have never been subject to disease in the parts concerned. Frequent and sudden calls to make water, and inability to retain the urine for a length of time, were common temporary results of this operation, and in most instances some weeks or even months elapsed ere the parts were restored to their natural condition. Here, however, the operation, in every respect, had been followed with every advantage which could possibly be expected from such a proceeding.

TUBERCULOUS DEPOSIT IN THE PIA MATER.

THE following case is selected from a number of others of a similar kind in a late number the of "Journ. de la Soc. de Med. de Nantes:"—A young man, twenty-five years of age, had long suffered from disease of the heart; he was seized with inflammation of the left pleura, which became afterwards complicated with pneumonia and pericarditis. His disease proved fatal, and towards the termination of his life he daily had fits of an epileptic character, losing consciousness for some minutes, his face becoming purpled, and his arms agitated by involuntary movements. After death, on the middle and posterior portions of the right hemisphere of the brain, many tuberculous deposits, of a grey or bluish colour, were found, underneath which parts the brain was in a softened state. Deposits of the like nature were discovered on the inferior surface of the cerebral lobes, on the upper surface of the cerebellum, and in other parts of the pia mater. In the thorax, the heart was found hypertrophied, and adherent to the pericardium; adherences also existed between the right pleuræ pulmonalis and costalis; the left lung was partially hepatised, and there were numerous tubercles in the bronchial glands, *but none existed in the lungs*. It is singular also that the patient is not stated to have ever been delirious during his malady.

ON THE

EFFECT OF TEMPERATURE

IN CAUSING

REFLEX ACTIONS,

AND ON THE INFLUENCE,

AS A REMEDY, WHICH IT THENCE DERIVES.

By William Frederick Barlow, Esq., Oxford.

It may be stated as a principle, that wherever physical irritation operates in occasioning reflex actions, temperature will avail also; and I have generally found that the latter has the greater efficacy, probably because it affects a larger extent of surface, and therefore more incident nerves are stimulated at one time.

The various muscular actions which temperature originates, when applied to the cutaneous or mucous membranes, are very numerous; some of them are amongst the most familiar of events, but are not the less worth considering on that ground. The fact that a dash of cold water will recover a person from a state of syncope is a beautiful and important truth; and it is in great measure owing to our knowledge of it that that singular phenomenon strikes us with no terror, though it bears so exact a similitude to death. The remedy is always at hand and ever efficacious. It is applied, and in a moment, breathing, and with it consciousness, the action of the senses, the power of volition, the expression of life are restored entirely.

In coma succeeding to convulsion the use of this measure will sometimes be equally striking in its result. A short time since I was called to a child whom a fit had left perfectly insensible; indeed, there was no sign of life; not the slightest respiratory movement was visible; no pulse could be detected, and the features were pale and deathlike. The respiratory, circulatory, and cerebral functions, and all the signs of animation, were instantly renewed by cold affusion. Here it may be inquired whether life would have been preserved had not respiration been provoked either in this or some other manner? Would the patient have rallied if left to himself, with bystanders looking on with consternation and doing nothing, because ignorant of what to do? Do not convulsions oftener end fatally than is supposed from no efficient stimulus being had recourse to when they bring on insensibility? Coma, though it may result from functional causes as well as from organic change or injury, is never to be regarded as a light occurrence; and when attended by a cessation of the respiration and circulation, it must be viewed as a temporary, too easily convertible into a permanent death. The mechanism of the body may be unimpaired, but who can restore its action after a too long rest?

In narcotic poisoning, also, the same application is indicated urgently, but here it must be perseveringly repeated, not relinquished on a little trial. The great source of danger clearly consists in the blood being no longer duly oxygenated, through deficient or temporarily suspended breathing. The brain, therefore, becomes doubly influenced,—primarily, by the narcotic, secondly, by venous blood. In an instance which I witnessed under the care of Mr. West, of Tunbridge, occurring in an infant who had accidentally swallowed a large quantity of opium, and was so affected by it that there was the completest coma, a pallid countenance, livid lips, and fearful pauses in the respiration and circulation, this remedy was given a fair trial. No sooner was it used than inspiration followed, and scarcely was it desisted from ere it became needful to resort to it again. Friction was had recourse to at intervals, that the warmth of the surface might be preserved. A sort of artificial respiration was kept up until natural breathing returned, and the cerebrum awoke from its lethargy. The nerves of the skin were made to play that part, which under ordinary circumstances the vagi nerves perform (through the stimulus of carbonic acid), and so life was continued, and a perfect recovery ensued.

In cases where prussic acid has been administered, and the frame is influenced by that deadly poison, a valuable auxiliary will be found in cold affusion, to chlorine, ammonia, artificial respiration, &c.; Herbst, Orfila, and others, speak highly of its powers.

In the cases of persons to all appearance dead, heat and cold are powerful measures in arousing the respiratory system; but they are not to be regarded as substitutes for other methods of resuscitation, so much as allies to them. The *first* remedy at hand must be put in force immediately; there must be no wavering. It has been somewhat humorously remarked by Dr. Fothergill, in regard to the comparative value of inflation by the mouth and bellows, that the former is preferable (among other reasons) "as the bellows may not be at hand."

The value of temperature in congenital asphyxia is admitted universally; one dash of cold water will suffice sometimes to excite breathing where it is delayed.

I think that most physiologists must concur with Dr. Marshall Hall in the opinion that the *first* act of inspiration in the newborn infant is excited through the fifth and spinal nerves, by the impression of the cold air. In breech presentations the hand of the person assisting in the delivery may primarily produce it, from being of a temperature lower than the fœtus. It was remarked by Dr. Heming that an infant which did not respire when born, breathed directly the

bedclothes were lifted up. And I have noticed movements in paraplegic limbs occasioned by their sudden exposure to the cool atmosphere, a fact which assists greatly in throwing light upon this subject. But we know that cold water readily excites inspiratory acts, and on this account, simply, it would be reasonable to conclude that cold air can do the like. Does not the same principle act in both cases, however different the medium? Cold, heat, tickling, friction, artificial inflation, &c., may become the first excitors of respiration, as the case may be; but the process is not occasioned, as that great authority, Müller, has imagined, through the impression of arterial blood on the medulla oblongata, for this view (as Dr. Hall remarks) inverts cause and effect; nor is ever "the first respiratory act *purely mechanical*, resulting from the change of position which the child undergoes at birth," as the able author of "Animal Physiology"* has affirmed.

The cold douche has been used commonly to impress the respiratory muscles in epilepsy, and it has been especially recommended in the puerperal form of it by Dr. Denman. Applied before the convulsion it may avert it; during it, it may hasten its departure. What is the rationale of its action in these cases? May it not prevent the closure of the glottis by the full and frequent inspirations it produces? or counteract and sometimes overcome the strong efforts of expiration which mark the convulsions by causing an antagonistic action of the respiratory muscles?

Cold acts upon the uterus like a charm, and in cases of flooding has saved the lives of many women. I have found it efficacious in retention of the placenta, and think that its application would sometimes make needless the introduction of the hand. The alternate action of cold and heat has been ingeniously used by my friend Mr. Simpson to occasion uterine action before delivery. The case in which he tried it was one of puerperal convulsions, in which there was a cessation of the parturient pains. He first used cold only, and found it very effective for a time, but the skin became chilled by its continued application, and it would act as an excitant no longer. "Accordingly," he says, "warm flannels were applied to restore the temperature, and then cold water was used again with decided effect." This is an example of the good result of distant degrees of temperature; in vain are heat and cold applied separately in some instances, where their alternate action would avail. Dr. Marshall Hall well observes, in relation to the nearly asphyxiated infant, "The important point to be considered is, that it is not the mere application of cold, but the sudden application of *cold* to a *warm* surface, which is the effectual means of exciting respiration. It is the *sudden alternation*." The success of temperature in Mr. Simpson's case should induce other practitioners to give it a trial where labour lingers. Perhaps it would be beneficial where it would be criminal rashness to administer the ergot, which, though a most valuable remedy when it is prescribed with judgment, has been shamefully misused.

The operation of cold as an excitor of the expulsor fibres of the bladder, has been most interestingly illustrated by Dr. Currie, in his "Medical Reports." "My friend, Dr. Ford, has mentioned to me the case of Mr. C——, of Bristol, who was instantly relieved of an obstinate stricture of the bladder, of thirty hours' duration (during all which time not a drop of water had been passed), by placing his feet on a marble slab, and dashing cold water over the thighs and legs. The effect was instantaneous; the urine burst from him in a full stream, and the stricture was permanently removed. The common remedies, particularly opium and bleeding, had been tried in vain." Facts this kind have been noticed by several other observers.

Cold will act similarly upon the rectum; when applied to the scrotum it contracts the cremaster. In a patient of Dr. Wm. Budd cold water was expelled with force upon being injected into the bladder. The first act of suction may be induced by it, as Dr. Marshall Hall has showed. It is said by Professor Müller that "contractions of the iris are produced by drawing cold water into the nostrils."*

Heat and cold are admirable tests of the excess or failure of the excito-motory power. They can be also used remedially where physical irritation is far less effective in calling it into play.

I have many times observed that temperature excites convulsive movements in paralytic limbs, where volition is extinct altogether. Sensation may be present or absent in such instances, but it has no more concern in producing the motions in the one case than in the other. The effect is often correspondent to the degree of temperature applied. In a case of hemiplegia, occurring in a child five years old, in which voluntary motion was entirely lost, sensation remaining, I noticed that the application of heat and cold alike produced reflex actions. The hand was immersed in water at the temperature of 90°, 120°, and 140°. In the first case no muscular movement was perceived; in the second there were forcible spasmodic actions; in the third they were still more violent. Dashing cold water on the face and chest occasioned convulsive movements of

* Published by the Society for the Diffusion of Useful Knowledge.

* See Dr. Baly's Translation of his Physiology, p. 614.

the paralytic limbs. In paraplegia, where no sensation could be transmitted to the brain, nor any volition from it, I have had occasion to remark the most lively reflex actions produced by temperature. The same phenomena have been witnessed by many physicians and physiologists. Their dependance on the spinal marrow and non-connection with the brain is illustrated by the following simple experiment.

Experiment 1.—I divided the spinal cord of a frog, midway between the origins of the brachial and sacral nerves. On immersing the feet in water, of about the temperature of 160°, they were violently and convulsively retracted. The brain, of course, had nothing to do with the causation of these movements. It will be seen that they depended on the spinal marrow, for on destroying this by introducing a fine wire into the vertebral canal, the muscles of the lower limbs lost their tonicity, and could no longer be provoked to contraction as before. Such a result would have been anticipated by any one who comprehends the nature of the reflex functions, and is acquainted with the experiments with which Dr. Marshall Hall has so abundantly and convincingly illustrated it. But I must call attention to another experiment which interestingly illustrates the effect of heat upon the nervous and muscular systems, premising that heat and cold are terms which are relative to the temperature of the being to which they are applied, and in making experiments this must be borne in mind.

Experiment 2.—I decapitated an eel, and excited quick and forcible spasmodic movements in its body, by placing it in water at the temperature of 120°. They were similar to those writhings which are sometimes seen in portions of this fish when they are fried, and which the ignorant think are the consequences of feeling and indications of suffering. I observed gaspings in the separated head, which ceased after awhile; these, I imagine, would not have been renewed had the head been suffered to remain at rest. I now introduced my finger into the mouth, and pushed it to the posterior part of it, but failed to excite the act of deglutition which would have followed had the excito-motory principle been vigorous, just as it occurs in the apoplectic patient when food, unconsciously to him, is conveyed backwards to the pharynx. It struck me that I could restore the reflex actions by the use of warmth, and therefore I put the head into water of about the temperature of 90°. Then there happened frequent and energetic gaspings, and the act of deglutition could be induced *by the same stimulus which was perfectly fruitless previously to the immersion*. This experiment appears to demonstrate the power of warmth as a restorative of the reflex function, in a striking manner; and here temperature operated, without doubt, through that same principle by which it excites in cases of asphyxia, empties the bladder, and contracts the uterus.

Volition counteracts the action of cold and heat upon the true spinal system, as it does that of other stimuli. The circumstances under which they operate most fully are when it is interrupted, as in a paralytic limb; or when it is quiescent, as in a comatose patient. But the result of the antagonism which exists so evidently between the will and the excito-motory principle is the harmonious and normal action of the muscular system, which becomes deranged, not only from those excesses and disorders of the reflex function, whose source is in the cord, but also from others which primarily depend on the annihilation of cerebral influence. I have formerly treated of this part of the subject more at length.*

Lastly, I would say a word on the action of temperature, when the surface exhibits an undue excitability. A fit of epilepsy has been occasioned by washing the hands in cold water. There are diseases in which man, like a sensitive plant, starts from a touch. A movement in the very air which surrounds him is sufficient to occasion a fearful paroxysm. Both in the treatment of tetanus and hydrophobia the *sudden* application of cold must be avoided; it must be applied *continuously*, if used at all, that it may act as a sedative and not an excitant. The temperature should be preserved as equally as possible, nor should the patient be touched thoughtlessly with a cold hand, for such is the power of trivial irritants, that he sometimes beholds an insect with terror, lest it should alight upon him.

Oxford, April 22, 1843.

EPIDEMIC JAUNDICE.

Icterus of an epidemic character appeared in the south of France towards the end of the year 1841. At Chasselay-on-the-Saône, some miles north of Lyons, many persons became affected, after a few days of dense fog, with a general sense of lassitude and uneasiness, anorexia, and precordial anxiety; and some patients experienced violent pains in the epigastrium and right hypochondriac region. Yellowness of the surface supervened these symptoms, accompanied in those most painfully affected with disturbance of the digestive organs, though without fever; but in others it was not attended with any embarrassment of the general health. In all, however, the fæces were clay-coloured, and the urine charged with the colouring matter of bile. Among the persons affected was one child of four years old, but the major part of them consisted of adults.

---

* Lancet, Jan. 11, 1840.

AZOTISED MATTER IN THE URINE.
CHEMICAL CHANGES IN THE HUMAN BODY.

To the Editor of THE LANCET.

SIR,—It was no *less* important a consideration than the influence which the "British and Foreign Review" justly possesses, in the best informed circles of our profession, that induced me to address you in the letter that you did me the honour to publish at page 82 of THE LANCET, and which letter has been noticed by the author of the review in the Quarterly, at page 206 of your last week's Journal.

Nothing could occasion me greater pain, in the pursuit of a scientific object, than to give offence to any individual. In the use of the word "perversion" I meant not a *culpable* or *guilty* perversion, but simply that the critic, in my humble judgment, had done an injury to the cause of truth in having misinterpreted the views of one of its most illustrious votaries.

Liebig has, I believe, truly said that "the amount of tissue metamorphosed in a given time may be measured by the quantity of nitrogen in the urine." (Org. Chem., p. 245.) The reviewer has as justly remarked,—"If we suppose that no more nutriment is received into the system than is requisite to supply its wants, we can readily admit that no azotised matter will pass into the urine until after it has performed its part in the solid structure." (Med. Rev., p. 503.) The quotation from Liebig will be found to have been made from a part of the work in which the *physiological* state of the human body in a perfectly healthy condition, is under consideration, and the sentence next but one preceding that which is quoted involves the very condition which the reviewer has put suppositively. Liebig and his reviewer, then, agree as to the origin of the azotised matter of the urine in that state of the system which may be strictly called "physiological."

But the quotations that are contained in my letter sufficiently indicate it to be by no means inconsistent with Liebig's views that azotised matter should appear in the urine from other sources besides the disintegration of the tissues, under forced and unnatural circumstances, wherein the system deviates from the condition of perfect health. How, indeed, in the face of certain facts, could this be denied? Those relating to that state of urine termed "chylous," the passage of two or three drachms of albumen daily, in the affection of the kidneys described by Dr. Bright, and other facts relating to certain combinations of lithic acid, and also of ammonia, in the fluid in question, for instance. To attribute this denial to Professor Liebig is, I believe, not only unjust to him personally, but, by impairing the reputation of his work, is calculated to retard the advancement of medical knowledge in this country.

On the subject of pulmonary emphysema the reviewer has misinterpreted me. I do *not* think that a diminished oxygenation of the tissues, in the case represented in the table, remains to be proved. The quantity of oxidised animal matter eliminated in twenty-four hours being 176.9 grains, and the healthy standard 263.1 grains, answers for itself, and I did not imagine that this part of the subject called for a remark. What I said, and here repeat, is, that the critic omitted to furnish his own proof of there having been an insufficient quantity of oxygen inspired, in the particular case selected, to convert into urea the usual proportion of the azotised elements disintegrated.

Phthisis has been several times cited as contravening Liebig's theory. It is impossible to enter fully into the consideration of this disease upon the present occasion, but one or two remarks are called for. From a paper published by Dr. Clendinning,* we learn that the average loss of weight by twenty-seven male patients who had fallen a sacrifice to that disease was nearly forty-eight pounds, the average healthy standard being taken at one hundred and forty-two pounds. We learn also, from the same source, that on a post-mortem examination of forty-three cases, the viscera had generally increased in weight, so that a very considerable proportion of the above loss must have been sustained by the voluntary muscles,—by that tissue in which, from various considerations, we may infer that the change of matter is most rapid, and in which the vital power has, to a great extent, both its origin and its expenditure. In the early stages of phthisis, emaciation and loss of muscular power are characteristic, and it is the incipient disease, in its more essential nature, to which Liebig, in all probability, refers, when he calls it one of excessive oxygenation. I am not aware of a sufficient number of experiments, or of any series thereof, by which the quantity of oxidised animal matter that is eliminated from the system in the urine, immediately preceding and during the early stages of tubercles, can be determined; but the inquiry is a very desirable one, and it should be accomplished before Liebig's statement respecting phthisis is sweepingly declared to be erroneous.

In the latter stages of the disease the very great diminution above indicated in the absolute quantity of muscular tissue, will go far to account for the diminished quantity of uric acid and urea in the urine, if this be

* Facts and Inferences relating to the Vital Organs. Medico-Chirurgical Transactions, 1838.

really a law. To account for the circumstance of a very large proportion of the animal matter appearing in the form of uric acid, supposing this also to be a general law, we have the condition of the lungs and the rapidly progressing loss, as the disease advances, of the red corpuscles, or carriers of oxygen. But before any general conclusions can be deduced from an examination of the state of the urine, the patient's appetite for food, and the nature of his diet, must be taken into the account. Very great differences are exhibited by individuals in this respect, up to the period of dissolution, and, according to Liebig's principles, such differences, either in a direct or an indirect manner, materially influence the quantity and the state of oxidation of the molecules that are separated from the disintegrating tissues.

These few remarks alone must, I am satisfied, convince the reflecting reader that the method of viewing the animal system which has been adopted by Liebig, opens a vast field of experimental investigation with a certain return of a rich harvest. In the instance before us, the altered nutrition of the voluntary muscular tissue being a prominent feature of incipient phthisis, the question may be fairly asked, What relation does this bear to the diseased condition of the lungs? The answer can be arrived at by the operations of chemistry only, and the investigation cannot fail to be attended with useful discoveries.

Had the "Animal Chemistry" contained one tithe of the errors and gratuitous assumptions which have been imputed to it, it would deserve to have been shelved long ago, but the critic has, in most instances, either mistaken the author's meaning, or has taken too superficial a view of the subjects comprised in the work. The infallibility of Liebig, or of any other man, is no part of my creed, but the discovery of principles having been the desideratum in physic, and the primary object of its most earnest cultivators throughout a long series of ages in almost every country, with very partial success, and seeing the tendency and the extent and depth of this author's investigations, let us not lightly reject his conclusions. "Reviewers" are endowed with great power, and have little individual responsibility. I am, Sir, your obedient servant,

HENRY ANCELL.

May 8, 1843.

CALUMBA root, in powder, has been found very serviceable in the removal of vomitings not dependent on any acute inflammation of the stomach and other viscera. In cases of spasmodic or other nervous irritation it is advantageously combined with an opiate. On the occurrence of acid risings with which persons of weak digestion are often troubled, magnesia is a suitable agent to combine with the calumba.

NAPHTHA IN PHTHISIS.

To the Editor.—Sir: The cases reported in THE LANCET, p. 149, treated by Dr. Hastings, it will be observed came under the care of Dr. H. in the winter half of the year,—at a time when all pulmonary affections are aggravated,—becoming relieved on the approach of spring. Those that come under treatment in autumn, or at the commencement of winter, I perceive, continued during the cold season, while those that occurred at the close of winter became relieved at about the same time with the winter cases. I think that this circumstance deprives of much interest a communication that would otherwise have been highly gratifying and important.

Notwithstanding the temporary relief which may have been afforded by the naphtha, I fear that the circumstance of season had much to do with the relative continuance and termination of the respective cases.

To establish for the naphtha, as a remedial agent in phthisis, the credit that Dr. Hastings seems disposed to award to it, it would be necessary to receive information as to the future pulmonary condition of the patients. It would appear that most of them had been subject to winter coughs, from which they became relieved on the approach of summer. Now, we are without information upon the diagnostic symptoms accompanying the former coughs and their treatment. I should *presume*, so far as dependence can be placed upon the statements of the patients, the symptoms were the same, but not treated with naphtha. What superiority, then, is to be ascribed to the remedy in question, over the means (if any) formerly used? They recovered then. They have done so now. Will they continue well next winter?

It appears to me that to decide upon the relative superiority of naphtha, even as an ameliorating agent, it would be necessary to select a certain number of cases of average tuberculous malignity, part treated with naphtha and part by other remedies, and let the result determine.

To obtain for naphtha the character of a specific it ought to be tried not upon winter coughs, but upon cases yielding in *summer* all the stethoscopic signs of tubercle, quiescent, inflammatory, softened, or excavating.

Having thrown out these observations for the notice of Dr. Hastings, upon what I consider to be an error in his testing the virtues of naphtha, I sincerely hope that that gentleman will pursue his investigations on a more extended scale. The profession seems pretty well at a stand with respect to phthisis, and I am sure that the gratitude of humanity is due to the man who makes an attempt (should he even fail) to drag us

from the "slough of despond" in which we appear to be all sunk. Hoping to hear again from Dr. Hastings, I am, Sir, your obedient servant,

S. D. C.

May 4, 1843.

MALFORMATION OF THE HEART,

AND

TRANSPOSITION OF THE GREAT VASCULAR TRUNKS.

A CHILD born on the 21st November, 1842, was deposited on the same day at the Foundling Hospital in Paris. Those who had the care of it remarked that it was often the subject of great difficulty of breathing, with a quick and dry cough, and especially that when it drank a state threatening suffocation ensued. The child was large, and externally well formed; but it died in eleven days, apparently of umbilical phlebitis.

On opening the pericardium, the heart was found altered from its natural form, being bag-shaped, or rather rounded at the place of the apex, and to consist of only one auricular and one ventricular cavity. Viewed from the front, the pulmonary artery was quite hidden by the aorta, which originated from the right and anterior portion of the ventricle, and by the auricular appendices, for of these there were two well-formed, though only one auricle. A line directed obliquely backwards, and from right to left along the base of the ventricle, would have crossed first the opening of the aorta, next that of the pulmonary artery, and lastly, the auriculo-ventricular opening. The spleen was large, but none other of the viscera or portion of the circulatory apparatus presented any anomaly. The most remarkable circumstance in this case was that no cyanosis had been noticed during life.—*Archives Gen. de la Med.*, Feb. 1843.

INJECTION OF THE JOINTS.

M. BONNET has, since 1841, adopted the practice of puncturing, and injecting solutions of iodine into joints in which dropsy or abscess exists. He recommends for use a solution composed of iodide of potassium, two drachms, and pure iodine one drachm, dissolved in one ounce of water, which is about the quantity that may usually be injected into a joint suffering from hydrarthrosis, an equivalent quantity of fluid being first drawn off by a canulated trocar. Acute and painful inflammatory symptoms in the joint usually resulted at first in the cases of hydrarthrosis thus treated by M. Bonnet, but all these symptoms are said to have disappeared after two or three days, and were followed by a speedy cure.—*Gazette des Hôpitaux.*

LIFE AND WORKS OF BARON LARREY.

THE following account of Baron Larrey formed part of the last anniversary oration of Dr. ROBERT WILLIAMS, the late president of the Royal Medical and Chirurgical Society, and physician to St. Thomas's Hospital. There is not, that we are aware, any existing review of the career and character of this distinguished surgeon so complete as the present:—

D. J. Larrey was born 1766, at Beaudéan, near Bagnères-Adour, Haut Pyrénées. His parents were in humble circumstances, but well connected, and, it appears, sent him, with very little previous education, at the age of thirteen, to study under his uncle, who was surgeon and professor of surgery of the General Hospital at Toulouse, and also an associated correspondent of the Royal Academy of Surgery at Paris. At Toulouse, and under the guidance of this relative, he passed through the usual professional studies, and in 1787 went to Paris, where, a few days after his arrival, he obtained the appointment of assistant-surgeon in the navy, a post which he accepted as enabling him to indulge his natural taste for travelling. Larrey was ordered to join at Brest, but his finances were so low that he walked from the capital to that port, and on his road he visited Laval, sought out the house where Ambroise Paré, the father of French surgery, lived, desired to see his chamber, and, yielding to the delusion of a warm imagination, almost fancied his great predecessor to be present.

On his arrival at Brest he was again examined, and passed in so distinguished a manner that, contrary to the usual practice (for he had not yet served on board ship in any medical capacity), he was appointed full surgeon at the age of twenty-one, to a small frigate, *La Vigilante*, and the ship being delayed he employed himself during the winter in giving lectures to the young students in anatomy and surgery. In the following April the ship sailed for Newfoundland, to protect the cod fishery, and to cruise off the coast of North America. Nothing remarkable, however, occurred during this voyage, except that when the ship returned to Brest, in 1788, the provisions had run so short that the crew were reduced to four ounces of biscuit and a bottle of putrid water daily, per man. Being once more on shore he immediately set off for Paris, and studied clinical surgery under Sabatier and Desault, the latter of whom he speaks of as a man of first-rate genius, and as one to whose instruction he was greatly indebted.

At this critical period the first clouds portending the French revolution were fast gathering in the political horizon, and civil dissensions had already risen to such a height in Paris, that several battles were

fought in the garden of the Tuileries, at the Bastile, and in the Champs de Mars. A large number of wounded were, consequently, sent to the hospitals, and a considerable portion placed under Larrey's immediate care, who thus early observed that when amputation was delayed after gun-shot wounds the cases did not greatly succeed, some perishing from tetanus, while others remained a long time under treatment.

The invasion of France by the continental powers shortly following, he was appointed full surgeon to the army of the Rhine, commanded by Marshal Luckner, and he joined on the 1st April, 1792. It was in this campaign that he observed the great inconvenience of the then mode of regulating the ambulance, which it was usual to station a league in the rear of the combatants, so that the wounded were left undressed and unattended till after the battle, when they were removed to the regimental hospitals. From the great obstruction of the roads, however, by the baggage, and by the movement of the troops, it was often thirty-six hours before they received surgical assistance, and consequently the greater part perished for want of timely succour. A remedy immediately suggested itself to Larrey for this great inconvenience, and he proposed to General Custine to establish an *ambulance volante*, or a means by which the troops might be dressed on the ground. This was adopted, and produced a reform, he says, which caused a great sensation among the soldiers, who felt assured they should now be succoured as soon as wounded. The moral confidence inspired in an army by timely surgical assistance cannot be better exemplified than by stating that a hot attack having been made on the breach at the siege of Metz, the assailants were almost successful, when Ambroise Paré appeared. The dispirited troops of the garrison, as soon as they saw him, cried out "*Vive* Paré! if we now are wounded we shall not die," and they immediately rushed to the charge, repulsed the storming party, and saved the place.—At the close of the campaign on the Rhine the military surgeons were highly spoken of by General Beauharnois, in his despatch to the Directory, and Larrey was ordered to Paris to complete his *ambulance volante*, and to adapt and introduce it in the other armies of the Republic.

After serving in Spain he received, in the year 1797, orders, apparently at the request of Buonaparte, to set out for Italy, and to establish the *ambulance volante* in that army; but hardly had he reached head-quarters when the peace of Campo Formio was signed. We next find, on Buonaparte committing the great military error of transporting a French army to Egypt, that Larrey received orders to join that expedition. In this position he appears to have been highly esteemed; he accompanied Buonaparte when he crossed the Red Sea, and was nearly lost, with the whole party, on their return, by the reflux of the tide.

The peace of Amiens restored Larrey to France, and on his arrival at Paris he found Buonaparte first consul, who not only ordered Berthier, in a public document, to express his satisfaction at the zeal and manner in which he had fulfilled his public duties, but confirmed all the medical officers he had promoted in Egypt, named him surgeon-en-chef to the consular guard, and presented fifteen hundred francs to Madame Larrey. On Buonaparte assuming the purple he named Larrey one of the first members of the Legion of Honour; afterwards created him one of its officers, and presented the decoration with his own hands, and a few days after made him inspector-general of the army. But Larrey's honours did not terminate here, for after the battle of Eylau he was promoted to the rank of Commandant of the Legion of Honour, Chevalier of the Iron Crown, and, after the battle of Wagram, he was made Baron of the Empire, with a pension of five thousand francs. At this point his good fortune culminated, and on the first deposition of the emperor he proposed to retire with him to Elba, and to share his banishment, but Napoleon opposed this mark of devotion in his faithful friend. "You belong to the army," he said, "and must continue with it; but I part from you with the deepest regret."

Almost immediately after his return from Elba, Napoleon sent for Larrey to the Tuileries, gave him the most touching marks of his satisfaction, expressed his regret at not having provided for him, and added, "I hope soon to have the opportunity of recompensing you for the sacrifices you have made, and for the services you have rendered to the wounded." One of those *coups de theatre* with which Buonaparte attempted to support his power, was summoning deputies from the different provinces to receive a tri-coloured standard. Larrey was among those elected for the Haut Pyrénées, and the emperor selecting him from the rest, placed the emblem of the French military glory in his hands, expressing his high satisfaction at entrusting it to a man who honoured humanity by his disinterestedness and courage, and whom he had often seen in the parching deserts of Lybia giving to others the water and spirits he greatly wanted for his own support.

When the preparations for opening the fatal campaign of 1815 were completed Napoleon sent General Drouet to him with orders to join the army, and more especially to direct the ambulance of the guard, and to be near his person. Among the many traits of brilliant courage which marked the last arduous contest at Waterloo, he relates the following anecdote, which, as it illustrates a question recently debated by this society,

may be mentioned. Colonel Sourd had received so many sabre wounds in the right arm that it became necessary to amputate that limb at the shoulder-joint on the field. During the operation, however, this officer not only did not manifest any sign of pain, but even dictated a letter to the emperor, requesting he might be retained in command of his regiment, and the dressing finished he mounted his horse and rode into the rear. This noble-minded person happily recovered.

After the tide of battle had turned against the French, and the charges of the British cavalry had nearly reached the French ambulances, Napoleon still remembered his friend, and sent one of his aides-de-camp to point out to Larrey a cross-road by which he might retreat. Hardly, however, had he proceeded two leagues when he was overtaken by the Prussian cavalry, and his horse having been wounded he was thrown insensible on the ground. He remained in this state for some time, but at length recovered, and his horse also, and he continued his retreat to the Sambre, when he again fell in with the Prussians, and was made prisoner. The Prussians did, perhaps, but follow the example set by the French in their country, by stripping him of every thing but his redingote, and in this forlorn state he was happily mistaken for Napoleon, and carried, with his hands tied behind him, to the Commandant Bulow, by whom he was recognised. Larrey had saved the life of Prince Blucher's son, who had been grievously wounded, and made prisoner in one of the battles in Germany, and this act of kindness being remembered he was now treated with much consideration, had his wounds dressed, better quarters assigned him, and afterwards obtained permission to proceed to Brussels, to give his professional aid to his wounded countrymen.

After the downfal of Buonaparte he suffered many mortifications from the Bourbon dynasty. He was deprived of his office of inspector-general, and of all his pensions, while a certain number of military were lodged in his house. He was retained, however, as surgeon of the guard, for fear, as he alleged, the troops should have been discontented at his removal. His position from 1815 to 1818 was also embittered by other misfortunes, for during this period he lost his mother, and his brother, a surgeon, at Nismes. In 1818, however, the pension of three thousand francs granted him by Napoleon for his services at Lutzen, Würchen, and Wagram, was restored to him by an unanimous decree of the legislative body. The latter days of his life, also, were cheered by many agreeable circumstances. The King of the Belgians invited him to organise the ambulance of his army, while Louis Phillippe granted him the decoration for his services to the wounded in the three days of July. He also visited Italy and this country, while his last service was to inspect the French hospitals at Algeria. On his return from Africa he set off for Paris to make his report to the Government, but was arrested by the hand of death at Lyons, Sept. 29, 1842.

The amount of Larrey's claims to distinction as a surgeon are very great; and it must be admitted he was admirably fitted for the high professional offices he attained, no man having ever excelled him as a military surgeon. It is impossible to study his works without being convinced of his sound good sense, of the rapid manner in which he read disease, and applied the resources of his art to the relief of the patient; nor can a doubt be entertained that Larrey being a bold and skilful operator, surgery owes many improvements to his genius, guided by his immense experience, especially in the mode and time of operations, and in the after-treatment of the wound, and also in the treatment of fractures.

Before the last French revolutionary wars there were scarcely more than two or three examples of amputation at the shoulder-joint, an operation first performed by Ledran. This operation, however, Larrey boldly and repeatedly performed, and even extended, by removing large portions of the shoulder and scapula, and with such success that out of one hundred and eleven cases ninety-seven were cured; and he speaks with satisfaction of the number of Y cases, for so he termed them, from the form of the cicatrix, which he met with at the Hôpital des Invalides, and other military asylums in France. The facility with which he ultimately performed this operation is quite wonderful, the limb being removed in two minutes, and with hardly the loss of a drop of blood.

We all know that Mr. Hunter had advocated delay in amputations until the constitution had taken on what he termed "the habit of disease." This opinion prevailed to a great extent both in this country and France, and it was by no means uncommon at that time for all cases requiring great operations to be sent to the different hospitals, and that at long intervals after the accident, or after the battle. Larrey, however, had heard from Desault that this system did not greatly succeed, and he had remarked this circumstance in the cases placed under his care during the civil contests in Paris. Again, he had read that during the American war (the Americans, probably having no great hospitals to send their wounded to), had performed all their great operations on the field, and had lost very few men. Again, that in the battle of the 1st of June, or Lord Howe's great victory, sixty wounded had been operated on during the action, and that all recovered, except two that died of tetanus, a striking contrast with

some minor actions in which the wounded were brought into port before being operated on, when they almost all died. These observations led him to adopt, as soon as the *ambulance volante* was introduced into the French armies, the practice of immediate amputation in the field, and the advantages he affirms to be that the patient is less often seized with stupor, tetanus, or hæmorrhage, and consequently much more frequently recovers. "Indeed," he adds, "almost all the invalids I have met with since the termination of the war, and who have lost one or more limbs, will tell you they were operated on in the field.

Not only has Larrey determined the time when operations are most safely performed, but he has also indicated some of the circumstances under which it is most imperative, as in some cases where gangrene has taken place. The ordinary practice before his time was to wait until "the line" had formed between the living and dead parts; but having witnessed many deaths from the operation being thus delayed, he first deviated from this rule in 1796, by operating, at Toulon, on a man who had received a violent contusion of the foot followed by gangrene, and the man recovered. This practice he repeated in Egypt, and it appears now to be an established rule throughout Europe.

Another circumstance also connected with gangrene was determined by him, which is that gangrene from congelation rarely occurred in the troops during the severest cold, but occurred always in large numbers when the thermometer had suddenly risen from many degrees below zero to many degrees above that point. The vast extent of his field of observation on this point may be estimated when he states that one division of the French army, on its retreat from Moscow left Wilna 12,600 strong, but on reaching the Rhine amounted only to 360, the rest having for the most part died of cold.

When the limb was removed he never hesitated to tie the veins as well as the arteries, believing the general apprehension of phlebitis to be a fable, never having witnessed such an occurrence, and conceiving all the accidents attributed to it must have been caused by the nerve being included in the ligature. He claims also one original remark as to the state of the stump after healing, or that the larger nerves, after giving off many fibrillæ, unite "*bout à bout.*"

With respect to his mode of dressing the stump, he says, "The remarks I have made in the armies of Europe, comprehending even the English, have led me to believe that they have less success in amputations than we have, and I attribute this difference to the mode of dressing the wound after the operation, they always attempting union by the first intention, however chronic the preceding disease." On the contrary, the practice of Larrey was only to attempt union by the first intention when the wound was recent and void of all inflammation, and then by the simplest means; for he contends that when the slightest inflammation exists or when amputation follows a chronic disease of the limb, dressing with a view to immediate union only irritates the part, pents up the morbid secretions, which being absorbed, produce the severest forms of traumatic fever. In recent wounds, therefore, consequent on the amputation of a healthy limb, after having trimmed the parts and placed them under the most favourable circumstances for union by the first intention, he strapped them together, and, as if he felt that Nature had foreseen the impossibility of providing surgeons to heal the accidents arising from the collision of hostile nations in arms, he ordered the dressings to remain untouched for several days, merely applying some cold lotion over them, leaving the pus and other matters, if they should form, to find their way as they might, and, proceeding in this manner, he had often the happiness of finding the stump healed before the dressing was renewed. The following case will show the degree to which he carried his dislike of the "nimia diligentia chirurgicorum."

An officer attacked by the Cossacks had his troop entirely cut up, and being himself considered dead, he was stripped naked and buried on the field with another corse, the earth being lightly thrown over them. After remaining in this state for some hours he recovered his senses, freed himself from the corse which lay partly on him, and made his way naked the next day to the French camp. On examining this patient, Larrey found he had received a penetrating wound in the chest, which had injured the lung and caused a large hæmorrhage, but that the wet clay which had been thrown upon him had closed the wound and stopped the hæmorrhage. Larrey replaced the clay plaster, confined it by strapping, and this gallant officer shortly recovered. In a subsequent battle the same party had the neck of the humerus fractured, was operated on at the shoulder-joint, and again recovered.

In the union of fractures he considers that none of the apparatus he witnessed in this country equalled his own in simplicity and in efficiency. His apparatus, he says, is more easy to apply than to describe, but that it merely contains the limb, keeps the parts in perfect apposition, without making the slightest extension, whilst its solidity is such as to enable the wounded party to travel long distances without the least displacement or the least accident. The result, he says, is, that there being no painful pressure there is no traumatic fever, while the formation of the callus is greatly favoured. After having thus set the limb, he considers the union of the bone as well as of the soft

parts is more rapid when the dressings are rarely removed,—a mode of treatment he conceives traceable in the mummies of ancient Egypt, and also in the practice of the ancient Greeks.

His physiology of the union of broken bones is contrary to that generally received, for he insists that no virole is formed by the periosteum or surrounding parts, but that union and reparation of the divided surfaces takes place by vessels proper to the bones, and that the cicatrix is formed of granulations in the same manner as in the soft parts. In the event of this cicatrix not being ossified, he condemns operations for removing the imperfectly-formed part, as dangerous and bad practice.

This is the bright side of this eminent and highly practical surgeon; for if we view him as a physiologist, as a philosopher, or as a practitioner, wielding the greater resources of our art, we shall find many false shadows, which not only do not relieve the picture, but greatly distort the drawing. As a physiologist he claims to have supported the doctrine of Gall, but on looking to his facts, we find merely a conviction in his mind that memory must reside somewhere about the lateral portion of the anterior lobe; a fact which, if true, has no reference to Gall's system, whose essence is that the brain is a "politic convocation" of many little brains, each having a distinct memory. He gives, also, instances in which injuries of the testicles caused alterations in the size and form of the occipital portions of the brain, while injuries of the cerebellum had, in some cases, been followed by atrophy of the testicles. He gives one instance, also, of the fracture of the cervical vertebræ causing priapism; but these observations are by no means peculiar to Gall, and yet are the most principal illustrations he adduces in support of his scheme.

As a philosopher, we can hardly agree with him that the electric and nervous fluids are identical, and that the brain is an electric pile and the nerves an electric telegraph. His doctrine, also, that yellow fever is principally an inflammation, of greater or less intensity, of the serous membranes of the abdomen, and does not greatly differ from cholera, is quite unintelligible. His knowledge, also, of syphilis, whose poison he conceives to act on the heart and arteries, is extremely imperfect.

Again, if we look to him as a practitioner, he is little acquainted with the resources of medicine. His practice in syphilis is limited to rubbing mercurial ointment on the soles of the feet, while in other diseases it is limited almost entirely to moxas. Does the patient labour under erysipelas, he applies a moxa; is phthisis the disease, moxa cures it; and nothing is so excellent in aneurism of the heart as ice applied to the cardiac region, and moxas. Dropsy is equally treated by moxas; and should the party labour under prolapsus uteri, he has fortunately an efficient remedy in moxas. Another remarkable mode of treatment which he recommends, and which he used in the Duc de Montbello's case, after a severe fall, and for which no sufficient reason is apparent, is wrapping the patient up in the reeking skin of a recently-killed sheep, a practice, he says, he derived from the Esquimaux.

Such was Larrey as a surgeon; now let us look at his character as a man, and take that character from one best able to appreciate it, from Napoleon himself. It is well known Napoleon left him by his will 100,000 francs, at the same time recording the honourable fact that Larrey was the most virtuous man he had ever known. In his long exile he often talked of him, and in these terms:—"In our first republican campaigns the department of surgery experienced a most happy revolution. The surgeon now partakes of the danger of the soldier, and it is in the midst of the fire that he now dresses his patient, and for this benefit humanity is indebted to Larrey." "He is a truly good man; he allows nothing to interfere with his duties at the hospitals; all the wounded are his family; and to science he adds, in the highest degree, the most practical philanthropy." "Larrey has all my esteem and gratitude." The circumstance, however, the most honourable to Larrey and Napoleon, perhaps, in their respective lives, was, that after the victories (such victories as they were) of Lutzen and of Bautzen, the number of French reported wounded was unusually large, and as the wounds were principally in the hand, it was quite plain they were voluntarily inflicted, and with a view to be invalided. Napoleon, who saw in this fact an additional proof that his army wished for peace on any conditions, lost all temper, and in his impatience cried out, "This is delivering France bound hand and foot to the barbarians!" and he ordered a commission of inquiry, and appointed Larrey the president. Larrey felt that such an inquiry not only sullied the honour of the French army, but must also greatly dispirit the troops, ventured to remonstrate; but the Emperor abruptly dismissed him, saying, "Make your observations officially; do your duty, Sir." The labours of the commission terminated; Larrey waited on the Emperor with the report, which declared the accused in every case innocent, and that the army had been calumniated. The Emperor was at first greatly agitated, but at length, taking him by the hand, he pressed it, and said, "That sovereign is indeed happy who possesses such an officer as yourself. I will send you my orders." In the evening the Emperor sent him his portrait, set with diamonds, 6000 francs in gold, and a pension of 3000

francs, without prejudice to the rewards due to his past and future services. Such a trait does honour to both parties, and has hardly been equalled since the days of Alexander and Philip.

The manners and person of Larrey were greatly urbane, endearing, and simple. By his death French surgery has lost one of its brightest ornaments, and its annals will record that in the strange vicissitudes of fortune which have attended the past contests for power in Europe, that there is no triumph he has not shared; no fatigue or danger he did not willingly undergo in the performance of his duty; and no act of devotion, of generosity, or of forgetfulness of himself, that he has not a thousand times given a most noble example. It was his long and brilliant career in the military service of his country that induced us to place him on the list of our honorary fellows, and it is because he has gone down to the grave less dignified by honours and titles than by scientific attainments and true nobility of character, "neither asking favours of fortune or of men," that we now mingle our regrets with those of France for a loss common as well to humanity as to science.

*** The French Academie Royale des Sciences has only recently proceeded to fill up the vacant niche left at its disposal by the death of Larrey. On the 3rd of April last, 58 members assembled to vote for this purpose. At the first scrutiny 20 members had voted for M. Velpeau, 15 for M. Civiale, 14 for M. Lallemand, 6 for M. Lisfranc, and 2 for M. Ribes. But no absolute majority of votes having been given for any candidate, a fresh election was ordered. After the third scrutiny M. Velpeau was found to have 39, and M. Lallemand 26 votes. The former gentleman is therefore the successor of the deceased baron.

STATISTICS OF TÆNIA.—Herr Wauruch, of Vienna, states that of 3864 persons treated in the space of twenty years at an hospital of that city, 206 were affected with tænia. Of these 206, 71 were males, and 135 females. The oldest individual affected was a man of fifty-four, and the youngest a girl of three years and a half old. Most were persons between fifteen and forty years of age. Tænia was not found in any woman after the cessation of the menses, and in only two men above fifty years old. Persons most concerned with animal provisions were those observed to be chiefly attacked; for of the 206 patients, 1 was a man, and 52 were women cooks, several were butchers, and 11 were eaters of large quantities of meat. Among predisposing causes, the principal were a habitation in a damp neighbourhood, and the use of injured aliments, as bad bread, flour, butter, potatos, &c., but particularly bad mutton, pork, and water.—*Oesterr. Med. Jahrbuch.*

ON THE POISONOUS INFLUENCE OF MALARIA,

AND THE DISEASES IT GIVES RISE TO, CHOLERA AND FEVER.

To the Editor of THE LANCET.

SIR,—In reference both to Mr. Ross's paper on the Pathology and Treatment of Typhus, lately published in your pages, and to my claims to doctrines put forth by Liebig, I beg leave to submit to your readers the following extracts upon the subject of malaria,—its effects, and those of other poisonous agents, upon the system, from my work on the Cholera, published in 1830; and which, with your permission, I intend to follow up with a paper, to which these extracts bear reference, on the subject of fever, its nature, causes, and treatment: this paper, I trust, will be found to afford a complete explanation of the whole phenomena of that affection of the system under every circumstance and condition; and I sanguinely hope will be further found to clear up most of the difficulties which at present exist with respect to the treatment of fever in general.

In support of the analogy between cholera and fever, both as to cause and to effect, I have adduced, in my book on the cholera, the cases of cholera which took place among Mr. Days' scholars at Clapham, in August 1829, recorded by Dr. Spurgin, when twenty boys out of thirty were attacked with all the symptoms of malignant cholera, from exposure to the malaria arising from the contents of a cesspool, which had been thrown, two days before, into a garden adjoining to and separated only from their play-ground by a low open paling. To the effluvia from this source it was quite certain that twenty out of thirty boys who had been so exposed owed their attack of this disease, and from which two of the boys died within twenty-four hours from the first symptoms of disease. The appearances after death, it is added, "bore a striking resemblance to those delineated by Roidear and Wagler as the results of the *morbus mucosus* which raged some sixty years before in Vienna, and which probably owed its origin to some analogous epidemic effluvium. So far as the great intestines were concerned the morbid change was very analogous to what takes place in the common fevers of this country." The appearances recorded it may perhaps be well to state:—"On laying open the small intestines, the Peyerian plexuses of mucous glands were enlarged in patches throughout the ileum into condylomatous elevations; in the lower part of the same intestine a few of the glandulæ solitariæ were similarly affected; and in the ascending colon and transverse arch, these latter glands were

almost universally diseased, giving an appearance of tuberculation to the whole interior of the bowel. The mesenteric and mesocolic absorbent glands in the neighbourhood of the parts most affected were enlarged and congested. The contents of the cranium in this case, as well as the thoracic viscera, were quite free from any appearance of disease; but in the other case, which died comatose twenty-three hours from the first symptoms of attack, in the head the ventricles were distended with about three ounces of serosity, and the sinuses were more charged than usual with dark-coloured blood, the bowels in this case not being diseased to an equal degree."

These, and many other cases, I have adduced in support of the opinion that malaria is a cause, not only of fever, but of cholera also, of the malignant kind, which I prefer designating *congestive*, as most appropriate with the general phenomena presented by the disease to our notice —in conformity with the more frequent appearances on dissection, and as pointing out to us the most successful indications of practice to be pursued in its treatment. Before proceeding to trace the effects of malaria on the system in inducing the phenomena of cholera, we must enter into the following preparatory considerations.

"The first question that arises is, what is malaria? I may briefly reply, that as its most fruitful source we believe to be animo-vegetable decomposition, it is fair to suppose it some gaseous compound of carbon, hydrogen, and nitrogen, as these are the principal constituents of such substances; and as experiments have proved such of the gases to be highly deleterious to animal life, observation is perhaps alone wanting to identify it with some compound of these.

"Of carburetted hydrogen it is said, by Nicholson, that in hot weather it is formed at the bottom of stagnant waters, and may be readily collected at their surface by inverting a bottle of water over the pool and at the same time stirring up the mud at the bottom, to disengage the gas. This gas generally contains a portion of carbonic acid mixed with it. Both of these gaseous fluids are produced by the decomposition of water, by putrid animal and vegetable matter."

Now of carburetted hydrogen Murray observes, "This is one of the most active of those gases which operate by depressing the functions of life. Even when largely diluted with atmospheric air it occasions immediate vertigo, sickness, diminution of the force and velocity of the pulse, reduction of muscular vigour, and in general every symptom of diminished power. It cannot be breathed in an undiluted state. Davy found that at the third inspiration total insensibility was induced, and symptoms of extreme debility continued for a considerable time after. These effects prove its positively deleterious agency." And of one of the gases known to be given out by the decomposition of animal matter in privies, cesspools and the like—sulphuretted hydrogen—Dr. Christison, in his work on Poisons, observes that it is "the most deleterious of all the gases; according to Thenard and Dupuytren, air impregnated with a 1500th part of this gas kills birds in a short space of time; and with about twice this proportion, or an 800th part, it will even kill a dog. Some time before these researches Professor Chaussier made experiments with it on animals, and he remarked that in moderate quantity it proved quickly fatal, whether it was inhaled, or was injected into the cellular tissue, stomach, or anus, or simply applied to the skin; the last important fact has since been confirmed by Labkuchner, in his thesis on the Permeability of the Tissues."

Now, as chemistry furnishes us with numerous other of these gaseous compounds, alike inimical to animal existence, although we are incapable of identifying the particular species, a knowledge of the foregoing facts affords us sufficient insight into their nature, and of malaria, for all our purposes: a single inspiration of malaria, Dr. Macculloch mentions, has been known to produce apoplexy and death. There is another fact as I shall hereafter observe, upon which has been noticed in making experiments with the noxious gases upon animals; it is, that in animals destroyed by exposure to such agents, "the irritability of the heart is entirely destroyed." Dr. Christison also observes, "The appearances in the bodies of persons killed by these emanations are fluidity and blackness of the blood, a dark tint of the internal vascular organs, annihilation of the contractility of the muscles.

The next question that presents itself is, upon what parts or textures of the body are the primary operations of malaria exercised? Now, as the skin and lungs are the organs more particularly exposed to its operation, we may fairly assume that it is through the medium of these organs directly or indirectly that the system is affected with malaria. as regards the lungs no doubt can arise; and little objection, I think, can be made against the operation of the same influence on the skin, the experiments of Jurine, Spallanzani, and Abernethy, having unquestionably proved similarity of function, the imbibition of oxygen and the exhalation of carbonic-acid gas, by the capillaries exposed to aerial influence on both surfaces. And the same is inferred by the experiments before quoted, the effects on the system being the same from sulphuretted hydrogen, whether inhaled or left for some time in contact with the sound skin. It remains, then, but to determine whether this agency operates on the nerves and capillaries exposed to its influence in arresting their

function; or whether, as a poisonous agent, it is imbibed and received into the circulation. The latter, I think, will be acknowledged as the most reasonable conclusion, since it offers an explanation why diversity of effect and variety in disease is induced by variety or difference in the composition of the mephitic vapour or malaria; and thus fever is the product in one case, and cholera in another. This view meets, too, with support in the experiments with the noxious gases upon animals, which are found to exercise, beyond the exclusion of oxygen, a positively noxious influence on the system; and this we find differing somewhat in effect according to the particular gas which is employed, as is the case with the various other positions, both of the animal and vegetable kingdoms; effects that are presumed to take place from the absorption of these substances and the contamination of the blood. Indeed, the office of the lungs would appear to be quite of a passive character in relation to the changes effected on the blood by respiration,—the conversion of black into red blood, which is the simple effect, on the one hand, of the exhalation of the ready-formed carbonic-acid gas, which the experiments of Mr. Brande prove it to contain; and on the other, of the imbibition of oxygen with the returning blood by the pulmonary veins, which being connected by their trunks with the left auricle of the heart, is thus absorbed by its dilatation. That this is the principal absorbing power is, I am of opinion, fairly made out by the experiments of Professor Mayer, who proved, by injecting fluids through an opening into the trachea, that absorption went on from the lungs more powerfully than from any other part of the system, which is exactly the result which reasoning *à priori* would lead us to expect, with our knowledge of the fact, that the heart's sucking action or dilatation is the principal means of absorption, seeing how immediately these organs are under the operation of the heart's influence; I think it extremely probable that condensation, or a certain degree of compression of the air in the lungs takes place, facilitating the process.

We are borne out in these views of the function of the lungs by the experiments of both Spallanzani and Abernethy on the skin, and the analogy existing between them. The first was completely satisfied that air in contact with the skin is changed exactly in the same way as by respiration: when atmospheric air was employed oxygen disappeared and carbonic-acid gas was produced. He was of opinion that the oxygen had no share in the immediate production of the carbonic-acid gas, because it was equally great when the animal was exposed to gases containing no oxygen; and he therefore concludes that the carbonic gas was exhaled and the oxygen absorbed, and Mr. Abernethy's experiments warrant the same conclusions.

That any appreciable direct influence arising out of the inhalation of malaria, if it really exercised any such on the nerves (the chemical, it would appear, being but secondarily subject to such influence), would be on the mechanical function of respiration; which, were it thus to operate, would give rise to symptoms so characteristic that they could not have escaped notice. I believe, therefore, we may safely conclude, that malaria is received into the system by absorption, and thence its influence is exerted; though, I may add, that when very virulent it may simultaneously affect the capillary vessels exposed to its influence, whether cutaneous or pulmonary, or both; but of this I shall speak hereafter.

From the previous considerations the following inferences are deducible:—That the noxious influence of malaria is induced by the blood's contamination, and operates in torpifying or arresting the chemical functions which take place in the general capillaries of the system. By this there is a diminished evolution of caloric and electricity (upon which subjects I must direct the attention of my reader to my last communication), and, in consequence, debility of all the functions. And it is probable that in the same way the venom of the serpent, and the various other sedative poisons, both of the animal and vegetable kingdoms, induce their effects; for it has been observed by several persons, of cholera, "that there appeared a sudden depression of every vital energy, and those who died had more the appearance of persons labouring under the bite or sting of some poisonous reptile, or the effects of some narcotic poison, than of disease."

I am supported, too, in the views I have advanced by the experiments of Dr. John Davy, who found that "the air expired from the lungs of the sick with cholera did not contain more than one-third of the carbonic-acid gas contained in the breath of healthy people." And, further, he observes, "In some cases the flaccidity of the muscular parts after death resembled that produced in animals by electricity, or when hunted to death. The colour of the venous and the arterial blood was the same, both being of the dark venous hue;" a fact that I have myself witnessed on taking blood from the temporal artery. This blackness of the blood, however, is an effect I believe in general secondarily induced, and is brought about in the same way as it is when other of the same class of poisons have been received into the system, and is a consequence of general capillary torpor and functional debility of the respiratory organs, both in their mechanical and organic structure.

Though I admit that the same agency

may not be without its direct influence on the skin or lungs subjected to its operation, as the stomach and the other parts are, to which others of this class of poisons may be applied, it is, however, deserving notice that the pulmonary capillaries in which the changes are effected by respiration, contrary to those distributed on the skin and the capillaries in general, are with reference to the blood they circulate, venous, and of passive character; and by consequence, I should say, less irritable and susceptible of impressions of any kind; which would appear another of the many wise provisions we see of the Almighty, considering how important this function is to the economy.

The cutaneous capillaries, on the contrary, are, we know, highly susceptible to impressions of all kind; it is, therefore, very probable that they may be thus simultaneously influenced or rendered torpid by the agency of cold when the individual has been so exposed; and as their function is the excretion of the perspirable fluid in conjunction with a large quantity of carbonic-acid gas, considering the great extent of the cutaneous surface, the effects, it may be supposed, would be proportionately increased, and thus would the operation of a less virulent cause than ordinarily gives rise to this disease produce the same result.

Another argument that may be adduced in favour of my views is the fact, before adverted to, that in animals killed by exposure to noxious gases, as well as in persons who have died by the like or mephitic emanations, not only has this blackness and fluidity of the blood been noticed, but annihilation, also, of the contractility of the muscular fibre; both of which have been observed by Dr. Davy in the subjects of cholera, the latter, if not, however, so fully expressed, being fairly implied. The experiments of Bichat, too, on the respiratory function in animals may be adduced as bearing on the subject; that physiologist terminates the account of his numerous experiments on this subject by observing, "We conclude, then, in general terms, and without attempting to determine how this takes place, that the heart's action ceases when the chemical phenomena of the lungs are interrupted, because the black blood which penetrates its muscular fibres is not capable of keeping up their action." And the same he says with respect to the brain, and finally observes, "The circulation of black blood carries to every part debility and death, the organs ceasing to act because they receive no red blood." I have only to add, that the views I have taken of the capillary circulation explain all this, and render it, I am of opinion, apparent that the primary operation of malaria, not only as a cause of cholera, but of fever, is not upon the brain and spinal marrow, as it has been supposed by Dr. Southwood Smith, and many other writers on fever, but are effects secondarily induced, as I have already partially, and shall more particularly explain hereafter, with the majority of the symptoms in common to the two affections; which, I repeat, are but modifications of the same disease.

If my views be correct as to the cause of cholera, and the operation of that cause, the symptoms which ensue are necessarily referrible to the defective excitement of the heart and brain, or principally so, these being the two chief organs of the body, and on which the functions of the other organs are dependent. First, with respect to the heart. In a ratio with the defective power of that organ, in its two-fold capacity of a forcing and a sucking-pump, which the experiments of Barry and Magendie warrant us in the conclusion that it possesses, will accumulation of blood take place in the veins; which accumulation, or congestion, will necessarily be greatest at those points of the circulation the most remote from the heart's influence. This obtains to by far the greatest extent in the mesenteric, gastric, and splenic veins forming the roots of the vena portarum, as the propelling action of the ventricle ceases in the arteries, and the sucking power of the auricles' dilatation has to operate through the additional and protracted route, both of the hepatic veins and vena portarum, hence the distention of the mesenteric and gastric veins, and sense of præcordial oppression, the first symptom, when I was the subject of the attack, that I was sensible of.*

Further, as it has been proved by the experiments of Home, Magendie, and others, that these vessels in health absorb fluids from the stomach and bowels, and which it may be presumed is effected by the heart's sucking agency, it is fair to suppose that the permeability of these vessels which admit of absorption in health, under their existing state of engorgement, and condition in which the sucking agency is withdrawn or rendered almost nugatory, would admit of exudation; and hence the sero-mucous or barley-water-like evacuations, either from the stomach or bowels, or both; but particularly from the latter, as the natural exit of the contents of the former is through them.

That sickness or vomiting in the early stage I think rather attributable to the stomach's defective nervous excitement, from diminished energy of the brain, as we see so often exemplified in cases of debility on the patient's removal from the recumbent to the erect position, and particularly from the sudden loss of blood, the patient be-

* I mention this, as I must observe, it was strict attention to the progression of the symptoms of the disease, and my feelings under personal experience, which led me to the explanation I now offer.

coming giddy and sick from defective arterial distention and excitement of the brain. And this explains the giddiness and sense of weakness that so generally attend an attack of cholera, and have been so frequently complained of as the first symptoms the patient noticed or was sensible of.

Feebleness of the voice and deafness are referrible also to the same cause. It may be observed, too, that from the cause before noticed giving occasion to vomiting, will indigestion ensue, and hence the undigested alimentary matters so frequently ejected.

In a ratio with the defective excitement of the heart and brain will be that of the glandular system; hence the diminution or suppression of the secretions of bile, urine, &c.

Inflammation and spasm come next to be considered, and are as readily accounted for, by pursuing the same chain of reasoning, adding to the consideration difference of temperament, idiosyncrasy, state of the individual at the time of attack, a greater or less intensity of the cause and treatment pursued. Thus, I should say, if the exudation from the mesenteric and gastric vessels do not take place, or be not equal to the relief of the distended veins, free ingress of blood is not admitted into them from the capillary arteries, and the consequence is they become irritated by distention and excited into inflammatory action; and hence the sense of burning heat, pain, extreme restlessness, and irritability of stomach, desire for cold water, and symptoms specifically denoting inflammation of the stomach and bowels.

Such symptoms, it is obvious, are more likely to attack the European than the native of India, the free liver, and those of inflammatory susceptibility of system, and, it is fair to suppose, may have been induced in many others by heating inflammatory remedies. It is worthy of notice, that these organs, being primary in the scale of animal existence, derive their nervous influence principally from the sympathetic, which originates in twigs given off by every collecting nerve of electricity proceeding to the spine and brain, that they may be but little influenced by causes operating on the latter (as stated in my last paper); hence it is the stomach and bowels retain their irritability to the latest period of existence, even after the apparent vitality of every other organ has ceased, and from which it may be inferred, that these organs would be proportionably more susceptible of inflammatory excitement than others; and hence it is in this disease, the leading character of which may be said to be the very reverse of inflammatory, that these organs have been found almost exclusively the seat of inflammation.

Spasms come next to be considered. They are, for the most part, of the clonic kind, or primarily so in all cases dependent, I believe, on congestion in the spine, at the origin of the affected nerves; or the tonic kind, of which the European is more frequently the subject, dependent on the same cause as the former, but having developed a certain degree of inflammation in the part; for Dr. Saunders, in the 64th number of the "Edinburgh Medical and Physical Journal," observes, "If any muscle, voluntary or involuntary, is affected with spasm, and during the affection the person dies, on examination it is found that the nerves which supplied the spasmed muscles are covered with turgid red vessels at their visible origins." And he goes on to observe, "In short, the nerves exhibiting such turgescence at their origins, correspond in number and situation with the muscles which exhibited inordinate contraction. I have conducted the investigation for about sixteen years, and have not found one exception."

This conclusion is confirmed by my own observations on tetanus, and was recorded long ere I saw this letter of Dr. Saunders. Two patients dying from this disease, I examined and found in both the most unequivocal marks of inflammation in the spine and at the base of the brain, whence the nerves originated which supplied the spasmed muscles. Similar observations are now, indeed, of every-day occurrence.

Slow or oppressed breathing, which have been noticed in the advanced stages of the disease more particularly, necessarily result from defective excitement of the respiratory muscles on the one hand, and of pulmonary congestion on the other.

Coma arises from congestion of the brain; and delirium, when it occurs, indicates the development of a certain degree of inflammation of the same organ. The congestion of the brain, it may be observed, is likely to become considerable from the circumstance of its unyielding bony case not admitting its vessels to be influenced, *ab externo*, by the pressure of the atmosphere, and the same obtains in the spinal canal. The serous effusion which has been so frequently noticed on dissection of the brain, is explicable in the same way as the exudations are from the stomach and bowels, or from the skin, which latter as cold sweat, we shall next consider.

The experiments of Dr. Barry, exhibited to the French Institute, proving the arrest of the absorption of poisons from the surface by the application of exhausted glasses, would prove also the heart's sucking power to be the principal agent of absorption from the skin. The experiments of Magendie would appear to place this beyond a doubt, and to establish that the veins are the principal imbibing vessels. Cold sweat may be considered, therefore, as an exudation from these vessels, and evincing (if not of a transitory nature, from some sudden cause of exhaustion) a still further depreciation of the heart's action, bordering, we

may suppose, on its final extinction; hence it is so generally a fatal symptom, not only in this but in most diseases.

Having completed an explanation, which appears to me to be satisfactory, of the whole phenomena of the disease, I have in conclusion but to ask, "Are not those sudden and concentrated attacks, which destroy the patient without the development of the usual and more characteristic symptoms of the disease, like a resistless apoplexy resulting from the overwhelming congestion of the brain, annihilating its functions and all the powers?"

Dr. Johnson mentions in his work on the Diseases of Tropical Climates, that "Mr. Finlayson observed in some cases, which happened often in Bengal, that the operation of the morbific cause was so violent as to destroy life in a few hours, without any other of the characteristic tokens of the disease except the extreme prostration of strength. In these particular cases there was such congestion of blood in the brain, that it had the appearance of being enveloped in a layer of dark coagulated blood, or by a diffuse and general ecchymosis; and in some cases where it was cut into, large quantities of dark coagulated blood gushed from it and from the theca of the spine. In the ordinary form of the disease this appearance was wanting, the blood being principally collected in the abdominal viscera." And the same work mentions that it was an observation of the Bombay Medical Board, "That those who are most intimate with the disease in question will be struck with the great similarity between this and the congestive typhus of Armstrong. And dissections, they state, abundantly prove that venous congestion constitutes the principal change that takes place during life." I am, Sir, your most obedient servant,

CHARLES SEARLE, M.D.

Bath, May, 1843.

TESTIMONIAL TO SIR B. BRODIE.

To the Editor.—Sir: In answer to your last week's correspondent's inquiry concerning the *Brodie Medal*, I beg to state that each subscriber would have long ere this received a medal, had it not been for an accident which has occurred *twice* to the *die* in the process of hardening. The committee have unremittingly exerted themselves to their utmost to get the medal finished, and the delay that has taken place, cannot be regretted by any one more thanby them; but it rests now *only* with the *artist* when it shall be completed. I am, Sir, &c.,

CHARLES HAWKINS, Hon. Sec.

Albany Court-yard, May 9, 1843.

THE LANCET.

London, Saturday, May 13, 1843.

INTIMATELY connected with medical reform, though less attractive to philosophic minds than the scientific features of that momentous question, is the due regulation of professional fees and emoluments, without which the profession can never sit easy amid its temporalities—unless the public health be placed wholly under the care of the state—nor have fair scope for displaying its energies.

Glancing at the history of the profession in this country, it becomes evident that the high fee of the physician has not only been seriously detrimental to that class of practitioners, but has produced numerous evils and anomalies throughout the whole profession. Originally, the apothecary was in England what he still is in continental countries—a mere vender of drugs and dispenser of prescriptions, who was not a member of the medical profession, and who had nothing to do with medical practice. But the exorbitant fee of the physician rendered it impossible for any but wealthy persons to claim his assistance, and hence arose the apothecary, whose vocation seemed to the public necessarily to bring him within the pale of medicine. This became an inducement to the apothecary to obtain a certain acquaintance with the practice of medicine, and that, in its turn, increased his hold on the public confidence. Many surgeons followed in the same track, and cultivated the improved craft of the apothecary, in order to assist them in supplying the want occasioned by the inaccessibility of the physician. Matters thus proceeded, step by step, until the surgeons in general practice have become the body in which the aggregate knowledge and respectability of the profession are centered, and to whose care the health of the mass of the community is confided. Now, would it be credible, were it not known to be true, that

in a civilised age and nation, the largest, best informed, and most respectable portion of a learned profession is absolutely compelled, by public prejudice and defective legislation, to seek for its remuneration and means of living by pouring floods of indescribably nauseous and detrimental trash into the stomachs of the sick and suffering members of the community? And if the physician be exempted from this miserable alternative, he, in his turn, suffers under another absurdity, namely, the *honorary* nature of his professional fees. Some persons tell us that it is essential to sustain the liberality of a learned profession that the payment of fees should not be obligatory. So that it is for the honour of the physician that every knave should have the power to cheat him, without redress at law. By all means, then, extend the catalogue of honour, and allow thieves to pick his pocket, libellers to traduce him, ruffians to assault him—all with impunity. The more he is legally rogued, the better his position in society.

The remedy for the degradation which attends the present custom is to be found in the establishment, by general agreement, if not by law, of reasonable standard fees throughout the profession, leaving it open to the liberality of the wealthier patients to increase, and the humanity of the practitioner to abate, their amount, according to circumstances.

The remuneration of the medical officers of public charities is another point equally deserving of grave consideration. None should work unpaid, and there should be no low salaries. The services of all those adventurous gentlemen who offer to labour in hospitals and dispensaries for nothing, should be unceremoniously declined, just as the kindness would be rejected of all bakers who proposed to supply one with bread gratuitously. There should be no appointments of officers who were willing to be remunerated by consequent "introductions to private practice," often, indeed, a delusive scheme even for the candidate for office, for there is no verier slave in existence than your dispensary doctor. Formerly, the public was in some degree deluded by this system. It was thought that, although the doctor might have some private motives of his own, it was still a most charitable and amiable procedure on his part to undertake the gratuitous care of such multitudes of sick poor. Oh! most disgusting charity and amiability! most wicked benevolence! But all this has gone by. The doctor is now regarded as an ass for his pains, and the general disposition is to take him at his word, and get as much work out of him, as possible. Hence he is continually subjected to every species of intrusion and impertinence from those charitable busybodies who take a tender interest in the welfare of the poor, without the likelihood of inconvenience to themselves.

At hospitals, again, the medical officers profess to perform their functions gratuitously, or for salaries so small as to be little better than nominal. Yet certain of these functionaries realise thousands of pounds sterling a year as the reward of their ostensibly gratuitous services. Alas for the patients in the hospitals! Pay these gentlemen a thousand pounds a year, fifteen hundred, two thousand, if you will, but *keep them in the hospitals*. Let them take the money from the treasury, not gather it in the highways. Carry the remuneration *to* them; suffer them not to *go collecting* in the squares and terraces, where their services are claimed, *away from the hospitals*, because they are *supposed* to gain so much knowledge of disease *in* the hospitals. It is equally a duty in legislation to prevent them from putting a scandalous tax upon medical education, and levying contributions—under pretence of being teachers and professors in hospital schools—upon unfortunate pupil who should possess a legal right to admission into the wards, and should be instructed, by public officers, in the theatres of medicine and anatomy, without charge *at the lodge gate*, their claim of entrance being adjusted elsewhere. Very radical is the reform

that is needed in the *hospital* branch of remuneration for medical services!

The remuneration, too, of examiners at the boards of education; what thorough changes are demanded there! We cannot say that those gentlemen are outrageously paid for their overhauling of candidates before the boards. That would be a wrong mode of stating the fact. They are paid large sums for doing a great deal of positive mischief. In their hands are the keys of the profession, and worthy guardians, indeed, have they been of the locks. The offices of examiners should not only be filled by men of the highest attainments and the acutest intellect in the profession, having no interest but one—the well-serving of medical science—to promote in executing their duties; but those offices should form some of *the prizes of the profession*, open to general competition. At present the post is as poor and beggarly in *reputation* as the measures are mean and sordid by which it is obtained. What principle of remuneration, moreover, can be worse in boards of examination than that which makes the emolument contingent on the success of the candidate? Medical examiners have very arduous and often very painful duties to perform. To fulfil them properly demands no ordinary amount of moral and intellectual endowments. Men possessed of such endowments should be amply remunerated, but they should be placed in a position which affords not the shadow of a temptation to partiality in their exercise, or alas for the public weal!

The medical profession, of all professions, is loaded with painful, diversified, and onerous duties, involving extreme labour, anxiety, and privation of personal comfort and convenience. Should not, then, its exertions be well repaid? And from the right sources? Else the reward must always be flickering, uncertain, inadequate, and vexatious in its acquirement. Let its members be remunerated for their private ministrations to the health of individuals by reasonable and uniform fees, under the qualifications that we have named; and, for their ministrations to the public weal, in public capacities, from the resources in the state.

DIRECTIONS RESPECTING THE REGISTRATION OF THE CAUSES OF DEATHS.

To the Editor.—Sir: I shall feel much obliged if you will inform the readers of THE LANCET that the Registrar-General has recently given the following directions to the registrars of deaths:—

"When the information given to you by the medical attendants upon deceased persons, respecting the 'causes of death,' contains also a statement of the *duration of the fatal diseases*, or is accompanied by the memorandum, '*p. mort.*,' denoting that the nature of the causes of death had been ascertained or verified by a *post-mortem* examination, you will not fail to enter these statements in the column of the register headed, 'cause of death.'"

It is desirable on many accounts that the laws respecting the duration of diseases should be ascertained, and this will afford the medical profession an opportunity of entering on permanent records a sufficient number of observations for determining those laws, as well as the laws of mortality.

With regard to the registration of the "causes of death," it has been found the most convenient and satisfactory course for the medical attendant to leave a written certificate with the friends of the deceased person, to be placed in the hands of the registrar.

The registrar is directed to ask the informant whether any written statement of the cause of death has been left by the medical attendant; but the relatives, from the natural distraction of grief, or ignorance of its scientific importance, are apt to forget the medical certificate unless the medical attendant take the trouble to state that it will be required, and place it in their hands.

If the medical profession needed any stimulus to induce them to contribute to the promotion of medical science, or to the discovery and consequent removal of the causes of untimely death, it will be found in the following considerations, to which the Registrar-General has adverted in his last report:—

"I hope that the members of the medical profession, who have hitherto given their aid,

will cordially assist in carrying out this national registration of the causes of death, as they alone are able to give a correct statement of the nature of the fatal diseases, and to them, more than to the members of any other profession, must be apparent the vast importance of thus collecting accurate materials for advancing the science of vital statistics."

Copies of the "statistical nosology, with notes and observations for the use of those who return the causes of death," may be procured by any medical practitioner upon application (verbal or written) at the General Register Office, Somerset House, Strand. I have the honour to be, Sir, your obedient servant,

WILLIAM FARR.

General Register Office,
May 6, 1843.

BRITISH MEDICAL ASSOCIATION.

THE half-yearly general meeting was held at Exeter-hall on Tuesday evening last, May 9th. There was a tolerable attendance of members and others, and the president (Dr. Webster) took the chair shortly after eight o'clock. Deputations were announced from the Brentford and East London Medical Association, and a gentleman deputed by the Suffolk Association would have attended but for a domestic calamity.

Dr. WEBSTER rose and said, that he had never taken the chair with feelings such as on that occasion,—feelings of satisfaction at the interest which the present crisis had began to awaken in the minds of the medical men throughout the country, arousing the profession to a sense of their danger, and the necessity for being united,—mingled with doubt and apprehension as to the provisions of the Bill about to be brought into Parliament by the Government. The objects which had brought the members of the association together at this time were the same as those which had been the motives for bringing them together on former occasions, and which he might say had formed the first rallying point to bring medical practitioners of every grade to act together, namely, medical reform, the poor-law question, equal rights, a representative government, and a just scale of remuneration for medical men. (Applause.) Dr. Webster had formed part of a deputation appointed to wait on the poor-law commissioners and to represent to them the hardships and the ill remuneration that the medical attendants of the poor in general experience. The interview was long and unsatisfactory to the deputation; still, as so much good had been already effected by perseverance, he (Dr. W.) recommended additional perseverance till all the objects they sought for had been attained. Dr. Webster complained of the arbitrary regulations which excluded the possessors of diplomas from Edinburgh and Dublin, men equally qualified with the holders of English diplomas, from appointments to which the latter were eligible, as peculiarly demanding reform. The British Medical Association were prepared with a Bill to get introduced into both Houses of Parliament; but they had been advised by several members of the Legislature not to introduce it at present,—at any rate until Sir James Graham's Bill had appeared. He (Dr. W.) had waited with a deputation upon Sir J. Graham: little, however, respecting the forthcoming measure was elicited from that minister. "It may be (said the worthy president) *that he does not know*, or that he is so trammelled by the corporations that he is unable to speak freely on the subject. But I warn the friends of medical reform against expecting that any advantage would be gained by this Bill; I fear that, when it does come, it will be anything but satisfactory. Sir James Graham has gone to consult the monopolists themselves; and if these are pleased with the reform about to be introduced, what good is likely to result to the profession and the public at large?" The corporations oppose the representative principle, on the principle —'divide and conquer,' because they know that if the profession were united into one body, they themselves would exercise less power and influence. We do not object to the conferring of superordinary degrees by the corporations, but we maintain that one uniform qualification, tested by a high standard of examination, should confer the licence to practise; and the feeling in favour of such uniformity is so general, that of 220 medical petitions, receiving 6000 signatures, and presented to Parliament in 1840, nearly all were in favour of the establishment of the ONE FACULTY. Dr. Webster then urged that the profession at large should "give themselves no rest" till they had accomplished this end, an appeal which was responded to by the general applause of the meeting; and after alluding to some points of minor interest he sat down greeted with continued approbation.

Resolution 1.—Moved by A. B. WALL, Esq.; seconded by R. READ, Esq.,

"That in future the ordinary meetings of the association and of the council shall be held on the first Tuesday of each month, but that special or adjourned meetings of the council may be held as often as shall be necessary for the transaction business."

Resolution 2.—Moved by W. P. JAMES, Esq.; seconded by W. SELF, Esq.,

"That medical students shall be admitted as 'associates' of the association on proving they belong to the profession, on registering their names; such associates to have the

right of being present (but not voting) at all meetings of the members."

Resolution 3.—Moved by Dr. MARSHALL HALL; seconded by SEPT. READ, Esq.,

"That petitions be presented to her Majesty and both Houses of Parliament, praying for a measure of medical reform on the principles of incorporation, representation, uniform examinations, registration, and protection to the public against unqualified practitioners; and also that no charters be granted to any medical corporations until the whole subject shall have been brought before Parliament, and ample time allowed for discussion and consideration."

In moving this resolution, Dr. Marshall Hall successively commented on the different principles contended for. "In principle (said he) I am a free-trader, not trading, however, in the lives of my fellow-creatures. From such delinquencies the public ought to be protected." He wished for an universal galvanic machine, or rather telegraph, to rouse up the whole profession from their apathy, and desired nothing better than that it might depend on his hand to set the whole in motion.

After a few words on the apathy of the profession from Dr. Evans Riadore, the following petitions and report were read:—

To the Queen's most excellent Majesty.

The humble Petition of the President, Vice-President, Council, and Members of the British Medical Association, agreed to at their half-yearly Meeting on the 9th of May, 1843:

Humbly showeth,—That your Majesty's principal Secretary of State for the Home Department has announced his intention of introducing into Parliament during the present session a Bill to Regulate the Education and Government of the Medical Profession; and believing that such a measure, on an enlarged and liberal basis, would be highly conducive to the health of your Majesty's subjects, and would be gratefully received by medical practitioners; but understanding that previous to the introduction of such Bill your Majesty will be recommended to grant new charters to the Royal Colleges of Physicians and Surgeons in London, which might have the effect of prejudging the question of medical reform,

Your petitioners humbly pray,—That your Majesty will be graciously pleased not to grant charters to any medical corporation until the expected measure shall have been laid before Parliament, and have received ample publicity and discussion. And your petitioners, &c.

To the Honourable the Commons, &c. (or the Lords, &c.)

The Petition of the President, &c., of the British Medical Association,

Humbly showeth,—That your petitioners, after laborious inquiry, and devoting much time and attention to the present state of the laws respecting the medical profession and its institutions, are convinced that they urgently require amendment; that your petitioners have on several occasions petitioned your honourable House for a measure of medical reform, upon a just and liberal basis, as regards the public and medical practitioners; that they have learned that her Majesty's principal Secretary of State for the Home Department has signified his intention of bringing in a Bill to regulate and govern the medical profession, but that he may previously recommend her Majesty to grant charters to the Colleges of Physicians and Surgeons, for the former of which a Bill may be brought before your honourable House; that your petitioners believing that the granting of charters to these or any other institutions, without full discussion and inquiry into the whole subject of medical reform, will be prejudging the question, and might be highly injurious to the interests and privileges of the general practitioners, who form the great body of the medical profession, humbly pray,

That no measure be entertained by your honourable House, with reference to granting a charter to the Royal College of Physicians, nor that any other measure of partial medical legislation be taken into consideration by your honourable House, until the whole subject of medical reform is brought before Parliament, and have received full publicity and discussion.

And your petitioners further pray that no measure of medical reform be passed by your honourable House which does not contemplate

1st. The institution of uniform searching examinations, both theoretical and practical, into the professional and general qualifications of candidates for the diploma, or right to practise all or any of the departments of the healing art, throughout her Majesty's dominions.

2nd. The union or incorporation into a representative faculty body (with equal rights and privileges) of all those so qualified, and of all present legally-qualified practitioners, who may wish to join the said Faculty of Medicine.

3rd. The registration of all qualified members of the profession, and protection to the public against unqualified practitioners.

REPORT OF THE COUNCIL ON MEDICAL RELIEF.

Soon after the anniversary meeting in November last, the council again took into consideration the question of poor-law medical relief, with a view to the more just remuneration of the medical officers, and thereby to

secure a more efficient attendance on the sick poor.

To effect these and other objects connected with this all-important subject, the council resolved, that a deputation should once more wait on the commissioners; accordingly the deputation was appointed, and had a long interview with the commissioners at Somerset-house, of which they presented the following report to the council, viz.:—

The deputation appointed at last council meeting report, that they had an interview with the poor-law commissioners on the 14th of February, 1843, and that it consisted of the president, Mr. Bottomley, of Croydon, Mr. Evans, Mr. Hooper, Mr. H. Read, Mr. Eales, and the hon. secretary.

Their objects were to impress on the commissioners,—

I. The necessity of increasing the amount of remuneration to the union medical officers, so that it should average at least 6s. 6d. for each case of sickness under their care; that sum to be increased in rural districts according to the distance, and lessened in densely populated districts, and in workhouses, but that the payment should rather be *by a salary* computed on the number of cases, and the distance, than by a separate sum for each case.

The commissioners did not consider that the payment per-case system could be carried out, as what would be sufficient remuneration in one district would be very insufficient in another, and *vice versâ*, and they thought that the plan would not work well for the poor nor the medical officers, as the guardians would be very careful to issue as few orders as possible. It was explained that these evils had been fully considered, and would be prevented or mainly obviated by the plans proposed for carrying out the system in detail. These were laid before the commissioners, but as it is difficult to convince those who have previously determined not to be convinced, the commissioners refused to accede to the proposals of the deputation, and on being closely pressed said *they did not at present intend to make any farther alteration in the mode or amount of remuneration.*

The deputation again reminded the commissioners that the present amount would not pay for a sufficient supply of the best drugs; that cheap and adulterated medicines were offered by chemists to union officers for the use of the poor; and that the temptation to employ these was almost irresistible under a system which allowed nothing for skill or attendance. Finally, in reply to a question of the deputation, *the commissioners acknowledged that they had sufficient power under the present Act to enable them to increase the amount of remuneration to the medical officers*, but they thought it would be opposed by the guardians,—they already objected to separate fees for operations and midwifery.

II. *Medical Supervision.*

The deputation then suggested the great importance of a plan of medical superintendence by means of a *medical director* and *medical inspectors*, under whose care the management and regulation of the poor-law medical department should be placed; that such a plan would greatly facilitate proper arrangements for just remuneration to the medical officers, and other points which at present the commissioners accounted difficulties. The duties of the medical director would be (in conjunction with the commissioners) to issue general medical regulations, and to examine medical candidates; to hear appeals from union officers; to arrange the size of medical districts; and to prepare an annual report of the sanatory condition of the poor. The inspectors, who should be men of experience and standing in the profession, would see the general orders carried out; regulate the medical districts of the several unions under their charge; perhaps examine the qualities of the drugs employed for the poor; attend consultations when required by the medical officers; and present to the director quarterly, half-yearly, or annual reports of their districts.

The commissioners objected to such a plan, not that it would be undesirable or objectionable, but that there was no machinery in the present Poor-law Act to carry it out; that on subjects requiring medical aid or advice they consulted gentlemen of talent and experience, as the various reports on fever and the sanatory condition of the poor, &c., evinced. To this it was replied, first, that if there were no machinery in the present Act for a system of efficient medical supervision, it could easily be introduced into the next Bill on the poor-law; second, that the profession objected to the employment of certain medical gentlemen, however eminent, whom the commissioners *occasionally* consulted, as this was done without responsibility on either side, and did not form that which was so desirable, viz., a *continuous supervision and inspection.*

This subject was discussed at considerable length.

III. *Size of Medical Districts.*

The deputation again drew the attention of the commissioners to the great size of some of the districts, and pointed out the importance of their being so reduced that the poor might quickly obtain medical aid, and the union officer have ready access to his patients.

The commissioners said that in many districts, such as in Wales and the north of England, they found it impossible to apportion the districts as they could wish from the poverty of practitioners, but in other cases they were reducing them, as far as

circumstances would admit, and occasion required. They were reminded that the parliamentary witnesses had recommended the average size of rural districts to be from ten to twelve square miles, and in town districts that the population should not exceed 10,000.

IV. *Qualifications of Medical Officers.*

The deputation cordially recognised the importance of union medical officers possessing both a medical and surgical qualification, at least until some efficient board was established, having power to examine candidates *in all departments* of medical science. They, however, again protested against the late order of the commissioners rendering it compulsory to obtain the surgical diploma from the *London* College, to the exclusion of the Edinburgh and Dublin Colleges. The commissioners stated, as on a former occasion, that they had acted under legal advice, and felt that they had no discretion in the matter; but to this it was replied, that Scotch and Irish surgeons were equally eligible with English ones, to the army and navy, the East India Company's service, and the English jails, and that it was evidently in contravention of the Acts of Union.

V. *Choice of their Medical Attendants by the Poor.*

This plan, the details of which were fully laid before the commissioners, was again pressed upon their notice, as one that would afford the greatest degree of justice and satisfaction both to the poor and the profession.

The commissioners, after considerable discussion, said they could not give their approval to the plan, as it would lessen the value of the appointments, and they feared that the same control could not be exercised over the medical officers; but the deputation consider that they satisfactorily answered both these objections.

VI. *Appointment of Medical Officers under the New Regulations.*

The deputation inquired whether the commissioners intended to enforce their late medical order, as regarded the appointment of medical officers and the mode of remuneration, by fees, for operations, and in addition to the salaries. The commissioners replied that they were fully resolved to do so, and *that any appointment of a medical officer not in strict accordance with their order would not be sanctioned by them, and would therefore be null and void.*

VII. *Medical Clubs.*

It having been rumoured that the commissioners intended to issue an order for the formation of medical clubs throughout the unions, a question was put to them as to its truth.

The commissioners said that *they had no intention* of issuing any *order respecting the formation of medical clubs.*

The deputation, after applying for, and receiving each a copy of the last poor-law report, and thanking the commissioners for their courtesy and attention, withdrew.

From the above report it appears to the council, that though the commissioners have full power to issue and enforce such orders as they may see necessary for regulating all matters connected with the administration of medical relief, they are still resolved not to do that justice to the medical profession which they have so long been struggling to obtain, and that they are thereby neglecting their duty to the sick poor, by refusing to sanction such a moderate remuneration as would tend to secure adequate attendance and genuine medicines. The council will not enter upon the other points contained in the above report, as they have been frequently brought under the notice of the members, but recommend that an immediate appeal be made to Parliament and her Majesty's Government, praying for an amended system of medical relief.

Resolution 4.—Moved by Dr. GRANVILLE; seconded by R. L. HOOPER, Esq.,

"That as in the opinion of this meeting the just rights and privileges of the great body of medical practitioners will not be secured without their union into a representative body or faculty of medicine, resolved that those associations and members of the profession who have not yet expressed their opinions on the subject, be invited to unite for this purpose with the British Medical and the other associations which have resolved to form such a representative body or faculty."

Dr. GRANVILLE, in rising to propose this resolution, said, that he attributed the slow progress of reform not only to the apathy of the profession, but to the prevalence of petty jealousies among reformers themselves, who, instead of keeping steadily in view those radical principles of reform with which the British Medical Association had started, had indulged in all sorts of wild schemes and made all sorts of propositions both in orations and in letters. This kind of proceeding might flatter the personal vanity of individuals, but was injurious to the cause. He proceeded to say that he had been selected by the association to deliver the first oration, and he had in that, to the best of his ability, laid down principles which he thought were to be the leading ones of reformers. These principles were the result of much inquiry and deliberation. He had digested the whole of the medical evidence given before Parliament, and had out of the mouths of the corporations themselves showed the necessity of reform. He had in this oration shown the necessity of union in the main objects of reformers, the avoidance of all personal feelings and jealousies, of all frivolous distinctions, and of all petty differences of

opinion. He believed that if the principles which he had advocated in that oration had been firmly adhered to by all medical reformers, Sir J. Graham would not be in a condition to resist their just claims. But unfortunately reformers themselves did not agree, and as he had said all sorts of schemes had been proposed and suggested in letters and orations. He complained that in some quarters his labours had not been appreciated by reformers, and read an extract from his oration to show that he had claims of priority in proposing principles which were now not acknowledged to be of his originating.

R. L. Hooper, Esq., seconded the resolution. The council of the association had done *their* duty, and had met night after night, and year after year, to carry out the principles of reform for which the association had been formed. They had invited, and even implored, the profession out of doors to join them and assist them with their advice and subscriptions. The corporations took advantage of the disunited condition of reformers. He contrasted this want of union with the singleness of purpose of the chemists and druggists, from whose union and liberality of subscription we could receive an useful lesson.

Dr. Webster, in putting the resolution to the meeting, remarked that this was not the time to discuss the claims to priority of reformers. Reform would and must triumph. Twenty-five years since it was merely as the well-spring hidden from the light of day; ten years ago it was as the small rivulet on which the sunlight shone; and six years since it began to receive tributary streams. He complimented Dr. Granville on the oration to which reference had been made, and proceeded to say that the association had not departed one iota from those principles which had been laid down at the first dinner of the association at the Bridge House Hotel, in 1836. If any deviation had been made, it was in the carrying a resolution this evening which proposed the formation of a faculty of medicine without any assistance from the corporate bodies, and totally independent of them. In the beginning these bodies had been applied to to assist in the formation of such faculty, but had not come forward to do so. It was now determined to form a faculty without them. He lamented the want of union among reformers, but such a want of union was natural, and to be expected, as persons might differ both as to the mode of reform and as to the extent to which it should be carried. The monopolists had only one object in view, and that was the retaining of their corporate monopolies, hence their union of opinion. The British Medical Association was not to blame for the want of union among medical men; the members of the whole profession had been exhorted to join them, and if they would not come forward in their own cause they deserved all the ill treatment they received from the corporations, and the bondage with which they were now enslaved. Opposed to this, he referred with pleasure to an evidence of union among reformers contained in a document issued by the Taunton and West Somersetshire Association. This document embodied a resolution that the members of that association should combine with the British and other medical associations to enrol themselves into a faculty of medical practitioners of Great Britain, to watch over the future proceedings of Government and existing medical corporations on the subject of medical reform. A similar manifestation had been made by the Glasgow Association, and many such would be made during the next six months. Reform must triumph. (Cheers.)

Resolution 5.—Moved by R. Wallace, Esq.; seconded by Chas. Brady, Esq.,

"That the members of this association and of the profession be earnestly recommended to wait on their representatives and other members of both Houses of Parliament to explain to them the principles of medical reform, and to request that they will support the prayer of the petition of this association."

Resolution 6.—Moved by Geo. Pilcher, Esq.; seconded by G. Bottomley, Esq., of Croydon.

"That the report of the council on the subject of medical relief be received and adopted, and that petitions be presented to both Houses of Parliament for an amended system of medical relief, particularly praying for,—1st. A just scale of remuneration to the medical officers, so as to ensure adequate skill and attendance, and the best medicines. 2nd. A system of medical superintendence. 3rd. Equal rights to members of the Colleges of Surgeons of Edinburgh and Dublin with those of the London Colleges to be appointed medical officers of unions. And 4th. The choice of their medical attendants by the poor."

George Pilcher, Esq., in proposing this resolution, referred to the petition, a document, as he considered, of great importance, not only to the profession, but to the poor. Much had been said respecting the want of union amongst medical men, but the absence of union was more the result of the circumstances under which many medical men were placed than of fault of their own. If contending interests rendered an unity of opinion impossible, that became a strong argument in favour of legislative interference to assist the profession, by determining, after due inquiry, what was the best course of proceeding for all parties. He attributed much of the evil respecting the medical relief of the sick

poor to the want of uniformity in the remuneration of medical officers; for in one district they were paid well, while in another they were actually out of pocket for expences for drugs and other necessaries. The whole blame rested with the poor-law commissioners, who ought not to reduce medical men to the necessity of accepting inadequate salaries, for he could not blame the medical officer, whether young or old, who, in the hope of making a connection, or retaining that practice which he had already acquired, consented to *give* his services to the poor, under the hope that something better might turn up in time. In many districts the medical officers were well paid, and it was necessary to show members of Parliament who might be guardians of those very unions that this was the exception and not the rule. This should be shown and proved. (Mr. Pilcher then adverted to the various points to which the resolution that he held in his hand referred.) The first of these, that which called for a *just* scale of remuneration, scarcely required comment. The second, which referred to the appointment of a medical superintendent, would, if acted upon, be serviceable to the profession, the poor, and the Government. He trusted that soon the distinction to which the third referred would be abolished, and that the education, the test of qualification, and the privileges of all British surgeons, would be the same; and, with regard to the fourth, he was sure that so humane a gift to the poor would be received by them with thankfulness, and that the plan recommended could be carried out easily by the poor-law commissioners without throwing additional expense on the rate-payers. (Hear, hear.)

G. Bottomley, Esq., of Croydon, seconded the resolution. Parliament might listen to the cause of the poor, if it did not to the claims of the profession, and the poor were as much interested in the purpose of this resolution as the profession itself. He was happy to say that the subject of medical relief had been taken up by some influential persons, both in and out of the profession, and that it was likely soon specially to occupy the attention of Parliament. He had been applied to respecting it, and had placed his opinions on paper. (Hear, hear.)

Towards the end of the proceedings a visitor, Mr. Rugg, made some remarks which caught a momentary attention from their pertinence to the objects of the meeting. When he was accustomed to attend the lectures of "the greatest medical reformer of the age," that functionary used to say, "In all things of importance take the bull by the horns!" Now that was precisely what he would say to the British Medical Association. Call yourselves a faculty at once, issue diplomas to your members. Invite the whole profession to join in the one body, and boldly call themselves "doctors," as members of the faculty. The Pharmaceutical Society made a similar stir,—they have already got incorporated by charter!

Dr. Webster stated that the proposition of Mr. Rugg could not at that moment be entertained by the council, but the subject had been under its consideration for some time. The progress hitherto made by the association had been considerable, and he hoped that in six months time a faculty of medicine would be established by it.

Thanks were then voted to the president for his conduct in the chair, and the meeting separated.

ROYAL MEDICAL AND CHIRURGICAL SOCIETY.

Tuesday, April 25, 1843.

Edward Stanley, F.R.S., President.

Cases of Strangulated Hernia reduced en Masse, with Observations. By J. Luke, Esq., Surgeon to the London and St. Luke's Hospitals. (Communicated by Sir B. C. Brodie.)

In this paper the object of the author is to show that the reduction of strangulated hernia *en masse*, although rare, is not so unfrequent as is generally supposed, and that the occurrence should be considered as coming within the ordinary range of probabilities of surgical practice. He had seen five cases of this description, two of which had been subject to his own treatment. In these the hernial tumour had been reduced entirely through the parietes into the abdominal cavity, with the contents strangulated; and as no swelling was perceptible, whilst the usual symptoms of strangulation continued, the diagnosis was rendered extremely obscure. The author gives the details of the two cases which occurred in his own practice, and describes minutely the steps of the operation which he performed in each. In one case, owing to the deceptive nature of the symptoms, and absence of the external tumour, the operation was deferred too long, and the patient died. On examination, the hernial sac was found to occupy a considerable space just within the abdominal parietes, in the vicinity of the abdominal ring. The fundus lay a little below its level, towards the pelvis, while the neck, still contracted, so as obviously to have been the original seat of stricture, was between three and four inches distant from the situation of the ring, and lay in an upward direction, towards the umbilicus. The whole sphacelated contents were empty, collapsed, and in a pulpy state. In the second case the result of the operation was successful. In describing its stages the author mentions, that before the hernial sac could be reached it was necessary to lay open the inguinal canal by dividing the tendon of the external oblique muscle, near the external ring; the spermatic cord was seen lying bare, or only covered

with a little fat. It was only when the finger was passed through the internal ring (the firm borders of which were distinctly perceptible) and pressed a little more deeply within the abdomen, that a round, tense tumour could be felt, which was found to be the hernial sac. The internal ring was cut through, and this allowed the sac to be drawn downwards, when it was opened, the stricture divided, and the bowel restored into the abdomen. The author concludes his paper by adding observations on the propriety, in doubtful cases of strangulated hernia, of performing an exploring operation to ascertain the exact nature of the case, as this proceeding would not involve the patient in much additional danger.

Mr. Cæsar Hawkins thought the accident to which the paper referred was by no means so uncommon as the author supposed, as there was scarcely a work on surgery in which it was not mentioned. He thought contrary to the author, that the hernia was more frequently reduced *en masse* when it was of the femoral than of the inguinal kind. He had met with several cases of the latter. In one case the hernia was brought down again by desiring the patient to cough —an operation was performed, and proved successful. In another instance the hernia was not discovered and proved fatal.

Mr. Bransby Cooper agreed with Mr. Hawkins that the accident mentioned in the paper was tolerably well known to surgeons. He had mentioned one instance of it himself in the last volume of "Guy's Hospital Reports." The patient was an old gentleman, who had an inguinal hernia on each side, the one was reducible, the other not. Mr. Toulmin, of Hackney, the gentleman in attendance, was called to him with all the symptoms of strangulated hernia. The reducible hernia was down; it was immediately reduced by the taxis, but the urgent symptoms continuing Mr. Cooper was sent for. Mr. Cooper found the reducible hernia again protruded, but it was easily reduced. The tumour on the other side was as it had been for years, but as the symptoms continued it was deemed advisable to open it. This was done, but no sign to explain the strangulation could be detected. Endeavours were then made to get the reducible hernia down by desiring the patient to cough, but these efforts were unsuccessful. The symptoms continued for three or four days, and the patient died. The tumour protruded after death, and on cutting into it, as in the operation for hernia, it was found that the intestine showed no mark of constriction, and that it passed readily into the abdominal cavity. The inguinal canal was now laid open through its entire extent, the external and internal rings being exposed. At the internal ring a small strangulated tumour was found. It was ascertained that the protrusion had consisted of two infundibulæ, or hernia, the anterior of which was large and free, and quite obscuring the posterior, which was small and perfectly adherent and strangulated. He thought, with Mr. Luke, in cases where a hernia had existed, been reduced, and the symptoms of strangulation continued, that an exploratory operation should be resorted to. He thought it rare that a hernial sac returned into the abdomen in a strangulated condition, but he had known four instances of it. It was as frequent an occurrence in femoral as in inguinal hernia. He thought the occurrence of stricture at the neck of the sac was very rare, and did not do away with the use of the taxis, a proceeding which could not be safely resorted to if the stricture were frequently at the neck of the sac.

Mr. Shaw related the following case, which occurred some years since in the Middlesex Hospital, and which appeared to him to bear very decidedly on the paper before the society. A man, forty-seven years of age, was admitted into the hospital at five o'clock one morning. He had a scrotal hernia on the right side, which, on his being placed in bed, was reduced with the greatest ease. It was then stated that the patient had been subject to hernia for twenty years; that it had come down five years before, and there had been some difficulty in reducing it. After that time he wore a truss, but continued the use of it for a short time only. Three days ago, in the evening, his rupture again came down; he felt sick and took a black draught, which he vomited. Next day he sent for a chemist, who made several attempts to reduce the hernia; upon his not succeeding he left him to his fate, and a surgeon was sent for: this gentleman reduced the hernia, but could not push the point of his finger into the external abdominal ring. The patient was much relieved by the reduction of the hernia. The bowels remained constipated, and did so until he was brought to the hospital, although he had taken fifty grains of extract of colocynth and sixteen grains of calomel. He had also several enemata, and had been bled to twenty ounces. When brought to the hospital his condition showed that he was in a state of great danger. He had constant vomiting; his abdomen was swelled and tympanitic, and exquisitely tender to the touch, particularly at the lower part on the right side. He gradually sunk and died, the hernia having come down repeatedly during the day, but being on each occasion reduced with great facility. On examination after death the hernia was in the scrotum. On cutting through the abdominal muscles, the intestines being distended with flatus, rolled out through the incision. The small intestines were all much inflamed. The portion of gut in the hernial sac was a part of the ileum, very near its termination. Above the stricture the intes-

tine was of a deep red colour, marked with several patches of an inky blackness, and it was loaded with dark offensive fluid. On turning these coils aside the lower portion of the ileum, leading from the hernia towards the cœcum, was seen small and contracted, its folds being in a mass together. These were of a pale green colour, and their surfaces were marked here and there with dark mortified spots. In the colon there was nothing to remark, except that it was contracted, and that it had not partaken of the inflammation. There was a large duplicature of the transverse arch, with a thickened mass of omentum attached to it, which appeared from its form, and the old adhesions that united it, to be the portion which had been reduced five years ago, when the rupture had come down. On examining the contents of the hernial sac, there was a fold of distended mortified gut included within it. The coats were here of a dark, and in some places of a perfectly black, colour; they were thicker and more pulpy than natural. At the point of stricture the gut appeared soft, as if it were about to ulcerate. Around the neck of the sac which formed the stricture, there hung a fold of the peritoneum upon the inside, which was loose, resembling an empty bag. Upon squeezing the strangulated portion of intestine, evacuating some of the air which distended it, and then reducing it, it was found that the intestine could very easily and effectually be passed through the external abdominal ring, so as to be hid from the sight. On looking to the inside, however, it was seen that the portion of gut had carried the neck of the sac before it into the abdominal cavity; and the described duplicature of the peritoneum being unfolded had formed a new sac for including the knuckle of intestine, on the inside of the abdominal muscles. Thus the fold of intestine was pushed through the abdominal ring, through the spermatic canal, and through that part which is described to be an internal ring (but of which ring no trace could be seen), and was reduced within the abdominal muscles, but not within the abdominal cavity. The neck of the sac had been torn off from the internal ring in the effort of reduction, but continued to grasp the included portion of the gut. There was another remarkable circumstance observed, which related to the sac lodged in the scrotum. At the lowest part there was a hole of communication between that sac and the cavity which is between the coats of the testicle. This orifice was so large that the finger could be passed through it, and its margins were so dense as to resist dilatation. It appeared to be the sac of a congenital hernia, pushed down before a common one.

Mr. Cæsar Hawkins thought that in this case the hernia had only been partially reduced, and had not passed into the cavity of the peritoneum.

Mr. Cooper believed that it had never been reduced at all, but that the intestine had passed between the fascia transversalis and the peritoneum; Mr. Cline had once met with such a case.

Mr. Arnott recollected a case similar to the one related by Mr. Shaw. He was assisting Sir C. Bell in a case of strangulated femoral hernia; the sac was cut open, and the stricture, as was thought, divided. The intestine was pushed up by the finger, but it was found that the point of the finger did not pass into the cavity of the peritoneum. It was then known that the stricture had not been divided, and that the tumour had passed up between the peritoneum and the parietes of the abdomen. The cut edges of the sac outside were accordingly laid hold of by the forceps, the tumour pulled down, and the stricture in the neck of the sac divided. He had met with two cases of inguinal hernia in which the stricture in the sac was not in the course of the inguinal canal at all, but an inch and a half below the external ring.

Mr. Fergusson stated that it seemed to him as one of the most valuable parts of the paper which had been read, that it inculcated the performance of an exploratory operation at a time when the patient's life might be considered as in the utmost jeopardy, and when all other means were found to be of no avail. Several cases had occurred within his own experience which bore upon the points brought before the society to-night, and some of them were to the following effect:—A stout muscular man, aged about fifty, had long been subject to an inguinal hernia, which he had been in the habit of reducing himself. Upon making an exertion more violent than usual, he felt the hernia descend, and proceeded to reduce it in the manner that he had been taught by his surgeon. Some hours afterwards symptoms of strangulation came on, but no protrusion could be felt, and subsequently, the various surgeons who examined him failed in detecting the slightest indication of such a disease. The symptoms continued unabated for two days, when the patient died, and, on dissection, a small hernia, with the bowel in a state of strangulation, was discovered at the upper part of the inguinal canal. Within these two years he had been called to see a gentleman suffering from symptoms of strangulated hernia. The patient had been in the habit of wearing a double-headed truss, which he had laid aside for a few days, and his present ailments had come on since. Nothing could be perceived which could lead to the supposition that a hernia was present, although the most careful examination was made, and as he felt that he had no good precedent to justify him in cutting into the linea alba (for it was partly with that object that he

had been called in), he declined interfering by any operative procedure. The patient died with the symptoms unrelieved, and afterwards, a small hernial tumour was detected in the upper end of one of the inguinal canals. This case had a strong effect upon his mind, and he resolved that should any of a similar kind ever again occur to him, he should not hesitate about exploring the inguinal passage. It was not very long ere one of the kind presented itself. Within these six months, a patient in King's College Hospital suffered from most of the symptoms of strangulated hernia, and his colleague, Dr. Todd (whose patient he was, and who had also seen the preceding case), had asked his opinion. As no protrusion could be detected, the propriety of opening the peritoneum in the linea alba was discussed, when, after a very careful consideration of all the circumstances, he came to the conclusion of performing an exploratory operation in the inguinal canal, which he accordingly did, but no tumour was detected, and the patient died soon after. It might be useful to know that such an operation had actually been done, though it had been attended with failure. He had seen an instance of crural hernia where the surgeon had actually performed the operation, but having mistaken the smooth outer surface of the peritoneal sac for that of the bowel, he had forced both sac and bowel through the upper part of the crural canal, and it was afterwards found lying on the inner surface of Gimbernat's ligament. These cases, with the others which had been noticed in the society during the evening, sufficiently convinced him that a surgeon was quite justified in resorting to such exploratory operations as had been recommended by Mr. Luke, and he felt satisfied that if performed more frequently many valuable lives might thereby be saved. Whilst on his legs he could not help alluding to the excellent concluding observations in Mr. Luke's paper. Many of the statements, however, seemed to him inconsistent with a mode of operating for hernia without opening the sac, a proceeding which Mr. Luke was known to advocate, and he should wish to hear what that gentleman said on this subject.

Mr. Bransby Cooper would wish to know if the gentleman who had just spoken meant to say that he should open the peritoneum in the linea alba instead of opening the inguinal canal, in these operations of exploration?

Mr. Fergusson said that he believed he had already answered that question. In the case where he had operated the matter was discussed whether an incision should be made in the linea alba or in the inguinal canal. He had chosen the latter, and he supposed that this sufficiently indicated the course he should follow on such occasions.

Mr. Macilwain did not believe that surgeons had of late years advanced in the treatment of hernia. He reprobated the delay which occasionally took place in cases demanding operative interference, and expressed his belief that cutting into the peritoneum was by no means so frightful a proceeding as many had believed.

Mr. Stanley related a case of strangulated hernia in which, after the operation, the tumour passed between the bladder and os pubis; the stricture was very high up, and reached with difficulty. Scarpa had related the case of a boy, of fifteen years of age, on whom he operated for strangulated inguinal hernia. The hernia was reduced, but the symptoms continued. It was found in this case that the hernia had passed between the viscera and the parietes of the abdomen. With regard to the performance of an exploratory operation in cases of suspected strangulation, he mentioned two cases in which, after careful examination, there was detected a little more fulness in one inguinal canal than in the other, and in each of these cases the exploratory operation was successful in discovering a very small strangulated hernia, which was easily reduced. In another case, which he attended with Sir B. Brodie, and in which there appeared to be a slight fulness in one inguinal region, accompanied by symptoms of strangulated hernia, an operation of exploration was performed, but no intestine or strangulation was found. The symptoms appeared to have depended on simple paralysis of the intestines.

Mr. Luke had thought the accident to which his paper had reference was not well understood by English surgeons, and not even mentioned by the generality of surgical writers. The observations of the various speakers proved that he was in error in so thinking. In his experience the accident was far more frequent in cases of inguinal than of femoral hernia, and this he attributed to the circumstance of the stricture being more frequently situated in the neck of the sac in the former than in the latter kind of cases. His paper referred only to those cases of hernia in which the reduction *en masse* was attended by no kind of perceptible swelling externally, the whole swelling being within the abdomen. He related two or three cases somewhat similar to those detailed by Mr. Fergusson; in one there was a large tumour in the course of the inguinal canal, in the others very small tumours.

ROYAL MEDICO-BOTANICAL SOCIETY.—*April* 27.

THE ACONITUM FEROX.

A communication from Mr. Foote, on the aconitum ferox, was read. This plant, the most virulent vegetable poison of India, was first described by Dr. Wallich in his

"Plantæ Asiaticæ Rariores." It grows in elevated situations in the Himmalayan chain, and in the provinces of Sirmore, Kumaon, and Nepaul. Richard has never met with it much lower than those places where the barometer was at nineteen inches. It is employed by the Nagas and other Indian tribes to poison the water in the wells and tanks, to impede the progress of an invading army, and also to poison the weapons used in warfare. The effects it produces are those of a narcotic-acrid poison, inducing inflammation of the alimentary canal, and acting remotely on the brain and spinal cord. It is used medicinally for the relief of neuralgic and rheumatic affections.

WHOLESALE POISONING BY BREWERS.

Dr. COOKE drew the attention of the society to the subject of cocculus Indicus. This article, which is scarcely ever used in medicine, and of no importance in the arts, is extensively imported into this country for the purpose of adulterating beer. To such an extent is this the case that writers on brewing openly acknowledge the fact, and give regular formulæ for its employment. One author states that it is impossible to brew strong-bodied porter from malt and hops alone; and almost all concur in deliberately recommending it on the ground that it increases the apparent strength of the beer, and improves its intoxicating properties. About the year 1818, numerous prosecutions were instituted by the Excise against parties for selling or using this substance. In many instances convictions were obtained by the parties pleading guilty to having sold or employed the cocculus, in order to escape investigation into the more serious charge of having dealt in the nux vomica for the same purpose. There can be no doubt that the latter is still employed to a certain extent, but it is beyond dispute that the former is used to an extent totally unsuspected by the Government. Unfortunately, no separate account of the quantity on which duty is paid is kept at the Custom-house; but it is believed to be extremely small, the greater part of what is used being smuggled over. In many years nothing at all has been received. In 1832 duty was paid on 12,000 bags; and in 1834 Dr. Pereira states that one druggist alone sold 2500 bags. In doses of two or three grains cocculus Indicus produces nausea, vomiting, and alarming prostration; in doses of ten grains or more it will kill strong dogs by tetanic spasms and convulsions; in still larger doses death, both in man and animals, is very speedily produced. The drug also kills plants. In very small doses it causes symptoms nearly resembling intoxication, and is believed to be the substance used in cases of what is called hocussing. Opium, which was thought to have been the agent, will not produce the effect experienced by persons who have been hocussed. Taking into consideration the known deleterious powers of the substance, and the proved fact of it being very extensively used by brewers, it will be evident that the public health must be seriously injured by the practice of drugging beer. Indeed, it is probable that the disease and death, often sudden, said to result from drinking, ought in many cases to be ascribed to the drugs with which it is adulterated. Dr. Cooke hoped some fellow present would be able to throw more light upon the subject than he had been able to do after much research and trouble. It was unfortunate that so much difficulty existed in the detection of vegetable poison, especially when mixed with organic matter.

Mr. MOWBRAY stated that the cocculus Indicus was principally used by the small brewers, who were supplied by a class of druggists called brewers' druggists. One of these told him he sold half a ton a week. It was sent to the brewers packed in casks, and covered over with soda, part of the latter being used in brewing to assist the solution of the cocculus; a very small portion of this drug paid duty at the Custom-house; it was passed as merchandise, and very frequently introduced in powder under the name of linseed-meal. With regard to its discovery in liquids which had been adulterated with it, its active principle, picrotoxine, might be readily detected, the chief difficulty arising from the small quantity present. If the fluid be evaporated in the open air, the active principle is decomposed and lost, but if in vacuo and over sulphuric acid, it can be discovered by means of iodide of potassium. Mr. Mowbray stated that on a future occasion he would furnish a process for its discovery.

THE TESTIMONIAL PRESENTED TO MR. SARGEANT BY THE SURGEONS OF THE BATH HOSPITAL.

To the Editor of THE LANCET.

SIR,—Whilst the advertisement published by the surgeons to this hospital was confined to a local journal, where every one knew all the parties concerned, it was not worth my while to notice it, especially as the impression it made on the public mind was by no means flattering to the consistency and wisdom of its authors. Now, however, that the advertisement has been transferred into the pages of THE LANCET (p. 173), evidently with the same intention of damaging my case, I feel myself compelled to remark upon it, and this I do, I assure you, with reluctance, for, unhandsomely as the surgeons have acted towards me, it is painful for me to arraign them before the profession.

Any one who will read the certificate given to me by the surgeons on the 8th of March, two days after the committee had "expelled" me, must be fully convinced of the view that the surgeons then took of that harsh and unjustifiable measure. That certificate was worded and written by the surgeons themselves, and by its style it was clearly intended to defeat the attempt of my enemies on the committee to blast my reputation and prospects. No one can read it without being satisfied that it was worded specially to meet the exigencies of the occasion, and that it contained the full and unqualified opinion of the surgeons as to my moral and professional character, and my general deportment in the discharge of my duties. On entering upon my office as house-surgeon I signed a paper consenting to forfeit my money in case of dismissal; the surgeons, therefore, as I was expelled, were entitled to keep the money, and I had no claim on them for a testimonial further than that which arose out of their own moral conviction of my merits. Under all the circumstances, seeing that I was persecuted-they found themselves in justice bound not merely to give me the certificate which I never asked, as a favour, but also to refund me my money, which I never applied for, but which they repeatedly pressed me to accept. In the conduct of the committee towards me the profession was insulted. The surgeons knew that, and when I called upon them for protection (having been appointed by them), they told me they could do nothing, being *powerless* without the committee.

After all this the surgeons complain of my having published their testimonial, and actually say that they did not give it me to be used in that way, the only way in which it could be of any use to me. On this point I refer your readers to the internal evidence of the certificate itself. The committee expelled me for alleged "disrespectful conduct at the board" on the 27th of February. The surgeons in their testimonial of the 8th of March gave me unqualified credit for "skilful and kind attention to the patients, and of respectful and gentlemanly demeanour" towards themselves. How, then, is the conduct of the surgeons in publishing their self-stultifying advertisement in the Bath paper, on the Wednesday following, to be accounted for? I will tell you, Sir. The hospital committee met on the Monday following my publication in the *Bath Journal*. The testimonial of the surgeons spoke for itself. There was no misinterpreting it, and the effect produced on the fullest board that had for years assembled, consisting of the surgeons' private patients as well as their public patrons, was such, that to appease the board and to live in peace with the committee, the surgeons were obliged to eat their own words, of which I wish them a satisfactory digestion.

That the surgeons were driven into this step against their will by a tyrannical board, is a fact I can prove, if questioned. I am now glad that the subject is before the profession, the only tribunal that is fit to judge in such matters, and I willingly and confidently submit to its verdict. I am, Sir, your obedient servant,

ARTHUR SARGEANT.

Bath, May 3, 1843.

LETTER FROM A BULLY.

To the Editor of THE LANCET.

SIR,—I have been so used to dishonesty on the part of *medical* men that I almost blush to write myself a member of the profession. In your number of the 23rd March, which I have just seen, is a paper by Dr. Laycock on Vital Periodicity. If that physician be not conscious he is attempting to *defraud* me of that doctrine, why has he omitted to name me in connection with it? The *unity* of disease! Dr. Laycock is fond of units. You have had in your possession for years "The Fallacies of the Faculty," two editions, and a French translation were also sent you. A third edition of that work I now send you, and as an honest man *I ask you to judge betwixt Dr. Laycock and me*, whether or not his essay be not *a mean attempt to purloin my doctrine*. If you do not print this letter, I have no doubt, from the rapidity of sale of the new edition of "Fallacies of the Faculty," that I shall have an early opportunity of doing myself justice in a fourth edition. I am, Sir, your obedient servant,

S. DICKSON.

Clarges-street, April 8, 1843.

*** We have complied with the request contained in the above creditable communication, and compared the contents of "Fallacies of the Faculty" with Dr. Laycock's papers on "Vital Periodicity," but without perceiving that the physician has in any way plagiarised from the quack, or been indebted to the "Fallacies" for any observations or facts whatever. Dr. Laycock (to quote his own words) "lays no claim to the discovery of the idea of periodicity in vital function, nor of priority in the application of that idea." (LANCET, vol. i., 1842-43, page 929). "Both these," as he truly says, "have long been common property." They are as old as the days of Hippocrates. But Dr. Laycock, while he has not pretended to found a system of medicine, reared upon principles that are neither new nor wholly satisfactory, has unravelled the phenomena of vital periodicity far beyond the point at which the dreams of his coarse and ill-bred accuser terminate, and has presented the subject in circumstantial details with a clearness which the brain of no such muddler as Dr. Dickson can imitate. In

short, the attempt to fasten a charge of plagiarism on Dr. Laycock is evidently made with the hope of gaining notoriety by means of a polemical discussion.

SYDENHAM SOCIETY.—The first meeting of this society was held on Monday evening, in the library of the Royal Medical and Chirurgical Society, Sir H. Halford in the chair. The meeting was numerously attended. The report was read and adopted, and several resolutions were passed respecting the objects and intentions of the society. The number of members at present amounts to 850.

BIRMINGHAM SCHOOL.—We are informed by a correspondent "that the arrangements for providing collegiately for the board, lodging, and tutelary care of the students of the Birmingham Royal School of Medicine and Surgery, under the charge of a Warden, are completed. In the list of donors who have already subscribed towards the erection of the college are the Earl of Dartmouth, 100*l.*; the Earl of Stamford and Warrington, 100*l.*; Earl Howe, 100*l.*; the Earl of Bradford, 100*l.*; Lord Sandon, 25*l.*; the Rev. Dr. Warneford, 1000*l.*; the Rev. Chancellor Law, 100*l.*; the Rev. V. Thomas, 100*l.*; the Rev. T. Mosely, 20*l.*; J. E. Piercy, Esq., 50*l.*; Joseph Webster, 20*l.*

BOOKS RECEIVED.

The Revenue in Jeopardy from Spurious Chemistry. By Andrew Ure, M.D., F.R.S., &c., Analytical Chemist to the Board of Customs. London: Ridgway. 1843. pp. 35.

*** A pamphlet containing some curious and important facts, worthy the attention of chemists,—professors of an "*exact* science,"—written on edge, however, which was scarcely necessary for the vindication of the author, who has done some service in it to the tax-collectors, but very possibly made himself some enemies amongst the "rogues in *grain*."

ROYAL COLLEGE OF SURGEONS IN LONDON.

LIST of gentlemen admitted members on Friday, May 5, 1843:—A. G. Canton, H. Lang, S. E. R. Jones, F. Sopwith, W. L. Echlin, R. N. Rubidge, J. Blaxland, W. W. Wildey, W. B. Kellock, C. Hall, T. B. Cowherd.

NEWS AND CORRESPONDENCE.

Sir,—Is there a disease of the skin where living *animals* or *insects* are turned out. It was stated that the late Duke of Northumberland had such a disease. Could it arise from uncleanliness? Probably some of your correspondents will answer this query. I am, Sir, your obedient servant,

A CONSTANT SUBSCRIBER.

*** There is a disease called *morbus pediculosus*, and it was also current that the distinguished individual named was affected with it. A want of cleanliness is not necessary to its production, and can hardly be supposed a cause in the case specified.

We state for the information of *Mr. Parkin*, who expresses a wish on the subject, in our number, page 156, that the French physician who advocates the combination of carbonic acid with quinine is Dr. Meirieu, physician to the hospital of St. Gilles, dep. Gard., whose remarks on this head are to be found in "L'Experience," for the 17th Nov., 1842, page 311. But we may add that Dr. Meirieu himself seems to admit that the greater efficiency of the quinine in some of his prescriptions is due, not to the carbonic acid so much as to the greater solubility of the quinine effected by the excess of tartaric acid employed. In this he corroborates the opinion of Prince Lucien Buonaparte, who has found the salts of quinine to be efficacious in proportion as they are soluble. And such was the opinion of our translator, although it accidentally escaped being appended to the article in the number of April the 8th.

Hippocrates.—It is not "usual." Two graduates in medicine might form a legal partnership, but only, probably, when one or both practises as an apothecary. What is very unusual may generally be regarded as "unprofessional."

Fraudatus can recover for attendance on a "surgical" case, but not if the case were "medical," unless he be also a L.A.C.L. Nor could he recover in any case under the "deed of purchase," because that deed did not make him a L.A.C. Counsel for defendant would soon show that the action was brought in the name of a firm which had no existence, besides showing that *A* (whatever *B* may have been) was and is not a legally qualified apothecary.

NOTE. — *To the Editor.* — Sir: Dr. John Craig, of Paisley, in his "Remarks on some Practical Points of Midwifery," in THE LANCET of April 22nd (page 115), which I have only this moment received, says, "In Dr. William Henderson's case (Feb. 11th), this woman was only fifteen hours in labour, and yet, from its nature, the child was lost. If the unnatural contractions in this woman's uterus had been removed six or eight hours after the commencement of labour, the child would not only have been sooner born, but in perfect safety, at least so far as strangulation was concerned." There was "no unnatural contraction in this woman's uterus" previous to the birth of the head of the child. The "unnatural contractions" of the os uteri took place after the birth of the head, and continued until the child was born. Your's, &c. WILLIAM HENDERSON, M.D.

Corstorphine, Edinburgh, April 3, 1843.